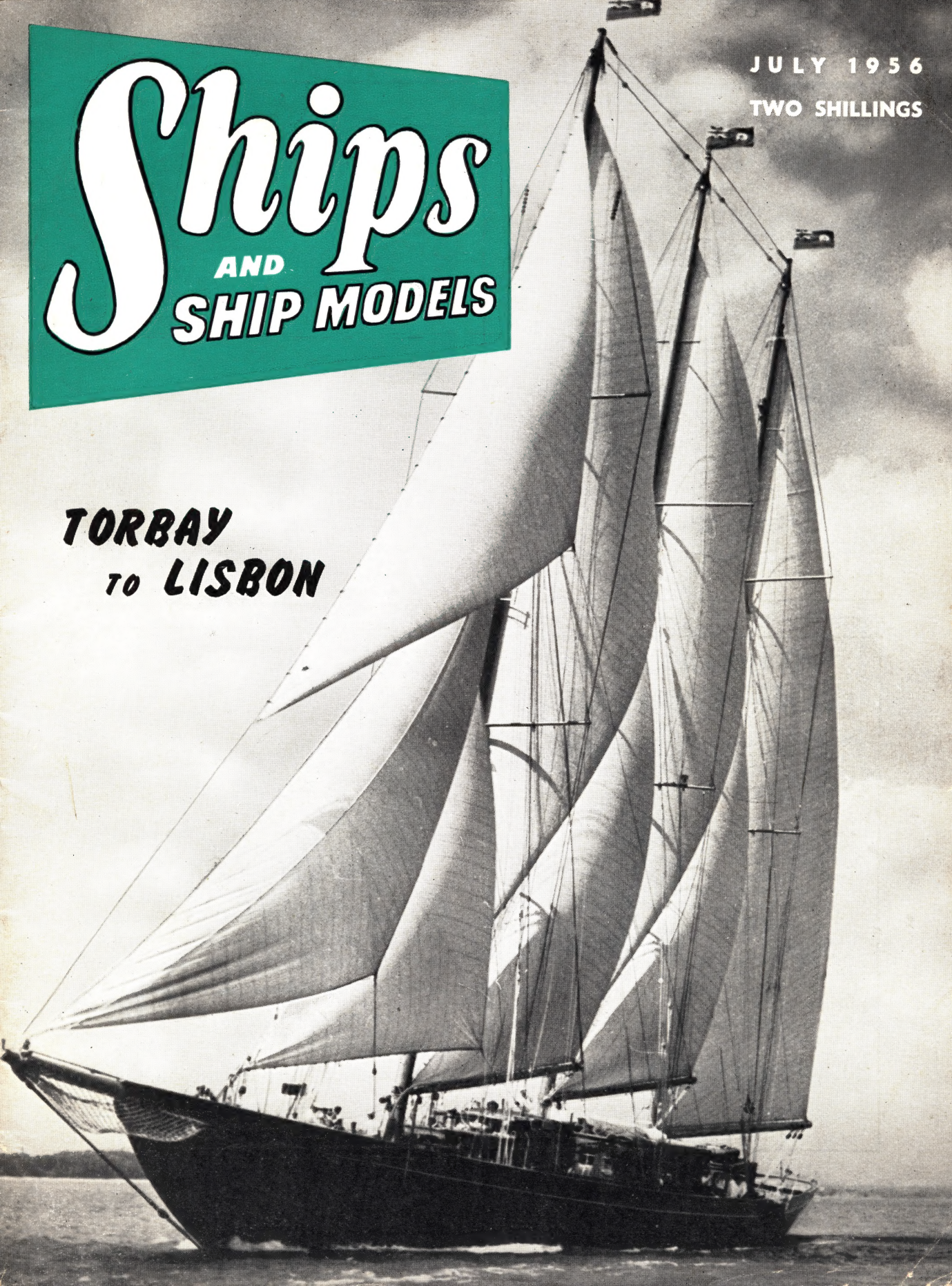


Ships **AND SHIP MODELS**

JULY 1956

TWO SHILLINGS

**TORBAY
TO LISBON**

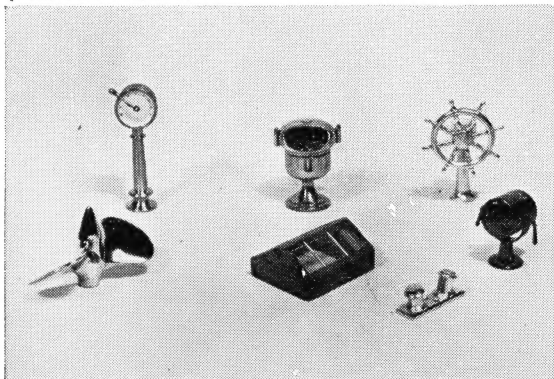




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Ships AND SHIP MODELS

INCORPORATING MODEL SHIPS & POWER BOATS

Vol. 1X. No. 102. JULY 1956

THE SHIP'S LOG

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SHIPS AND SHIP MODELS is always on the lookout for first rate illustrated articles, and readers are invited to submit contributions. Constructional details of ship models of all types are required and articles relating to model yachts and yachting. Manuscripts should be sent to the Editor, with stamped envelope for return if unsuitable.

EARLIER THIS YEAR an article about ship modelling in the U.S.S.R. was published in our associate magazine, the *Model Engineer*. From the pictures, the main interest seems to be in working models of modern ships and some fine examples were shown.

It has now been arranged for about 20 ship models to be flown over to be exhibited at the Model Engineer Exhibition, which opens at the Horticultural Hall, Westminster, on August 22. They will be accompanied by two Russian modellers and an interpreter and will provide an excellent opportunity for modellers of both countries to exchange views and experiences. One idea, which might well be borrowed from the Russians is to hold area contests and exhibitions in various parts of the country—the winning models to be sent to a large central exhibition for final judging.

This is the first time British models have been in direct competition with those of the Russians and the results should be most interesting. From the pictures some of the Russian models appeared to be quite up to our highest standard.

TORBAY RACE

THE RACE between the Sail Training Ships from Torbay to Lisbon which is scheduled to commence on July 7 will attract ship lovers and ship modellers from all over the country. In his article in this issue, Alan Villiers gives some interesting information on the ships in the race.

Those who visit Torquay for the event would be well advised to go on to Brixham to see the *Mayflower* which is being built at Upham's Yard. To see a replica of a ship of 1600 actually being built in the same way as the original *Mayflower* is an education. At the same time it helps one to realise the courage and determination of the sailors of that time in undertaking the tremendous voyages of discovering of the period. The exhibition in the hall alongside the slipway is also worth going a long way to see.

While in the West Country, a visit to Dartmouth is well worth considering. The museum which was opened a year or two ago contains some fine maritime exhibits, including some models which were first exhibited in the Model Engineer Exhibition.

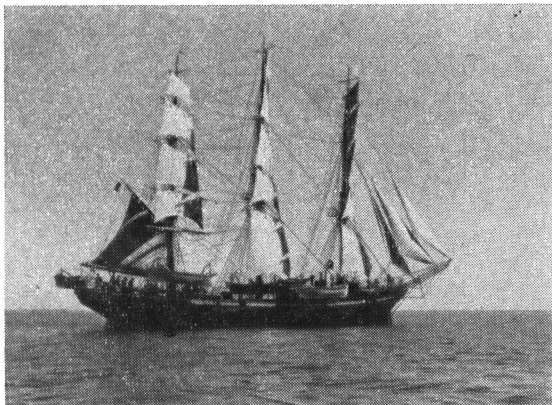
COVER PICTURE

The cover picture shows the three-masted schooner *Creole*, one of the British entries in the Torbay-Lisbon race, described on pages 206-8. The June cover picture caption should have read "Modelling a Gloucester Fishing Schooner."

Published on the first of each month by PERCIVAL MARSHALL & COMPANY LTD., 19-20, NOEL STREET, LONDON, W.1

Telephone: GERard 8811

Annual Subscription 26s. Od. post paid

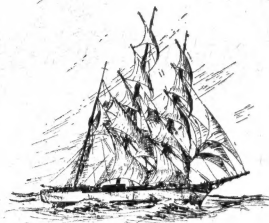


A handsome Dane—the GEORG STAGE

ON JULY 7, the largest fleet of sailing school-ships assembled anywhere since the war is to leave Torbay in Devon to race towards the Tagus Bar, off Lisbon, in Portugal. It was a bold idea to come from a country which, despite its pre-eminence in the shipping world, had no big ship of its own to enter and has not had such a ship for many years.

Twenty-two ships of 11 different nationalities, I am told, are taking part—perhaps there may be one or two more when the starting gun goes. Britain will be represented by the Southampton School of Navigation's 103-ton ketch *Moyana*, a former yacht; the 60-ton ketch *Berenice* loaned to the King Edward VII Nautical College by her owner, Mr. Morris of Reigate; several yachts including the *Theodora*, entered by the enterprising Radley College, of Abingdon, *English Rose II* (a training-ship for girls which sails out of Poole and does very well), *Provident*, of the Island Cruising Club of Salcombe, and the *Marabu*, which is to sail under the auspices of the

Torbay to



Commander-in-Chief, Portsmouth; and, finally, by the lovely three-masted schooner *Creole*, which belongs to Stavros Niarchos and will be manned, for the race, by cadets drawn from the principal nautical training establishments, together with her own permanent crew and officers.

Creole and her sister

Of these, the only sizeable vessel is the *Creole*, which is a beautiful craft, British-built, but scarcely a school-ship, though she could be converted into one if such a conversion were permissible. The *Creole*, a three-masted stays'l schooner (as I suppose the rig is called) of 140 ft. waterline, was designed by Charles Nicholson as long ago as 1927, with a couple of sister-ships which have gone the way of all flesh—the *Ailee* for Madame Heriot in France, and the *Sonia II*, I think it was, for Miss Betty Carstairs.

The *Creole* was to American order, built by Camper and Nicholson. She is 190 ft. overall with a beam of 31 ft. and a draft of 16 ft. 9 in., which is deep. Her three pole masts originally spread 14,000 sq. ft. of canvas and her mizzen boom was a hollow spar 65 ft. long. She had two semi-diesels. Now the vessel has been owned by Mr. Niarchos for some years (seafarers will remember her at the Coronation Review, where she was outstanding among the yachts) and her power plant has been increased two full diesels each of 1,200 h.p. She is a powerful motorship as well as a fast sailer.

Her rig does not appeal to me, I must say, though I can see its handiness. For looks I prefer the only other vessel in the race having similar characteristics, the Swedish *Flying Clipper*. This was Lord Brassey's former tops'l schooner yacht *Sunbeam*, a graceful vessel rigged as a three-masted tops'l schooner with a large spread of canvas. The *Sunbeam* was sold to the Abraham Rydberg Foundation in Sweden, to be a Swedish school-ship, some years ago, but proved



One of the crew of a competing ship mans the wheel under the watchful eye of the instructor

Lisbon

A review of this exciting event is described together with some background information on the ships which are taking part

by **ALAN VILLIERS**

rather expensive to run. The long hoist to her gaff-and-boom sails was a bit of a handful on occasion, too.

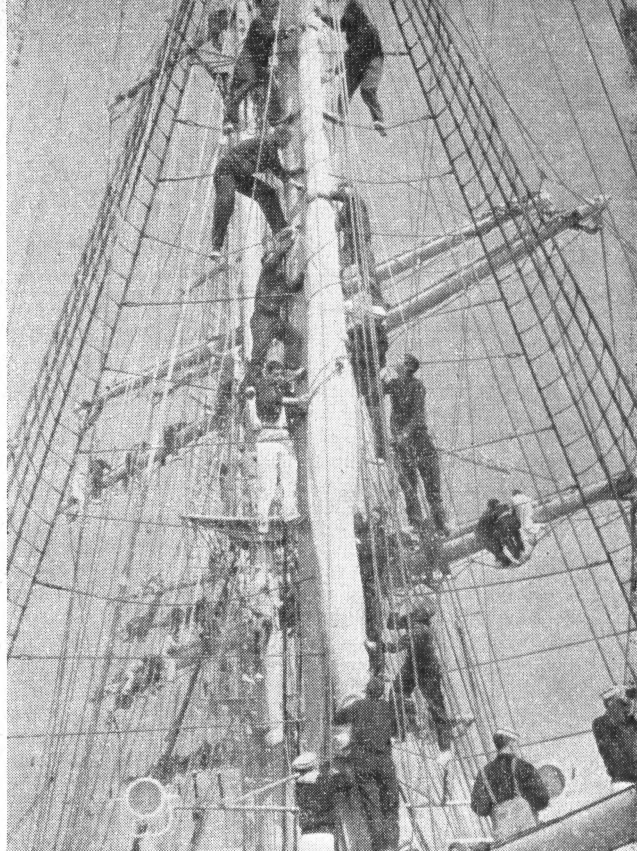
It will be interesting to see how she does in the race, as compared with *Creole*. The *Flying Clipper* nowadays is used, I believe, at least in part, as a windjammer-cruise liner and, as such, I should think that she has a considerable future and, I hope, also a prosperous one.

Swedish entries

There are two other Swedish entries which may be able to split tacks with the *Creole*, though they are not yachts. They are the Swedish naval training schooners *Gladan* and *Falken*, which were built since the end of the second world war. This smart pair of vessels has often been seen in Channel ports, where they have always created a very good impression. Unlike the *Creole*, which was designed purely as a private yacht, they were designed as schoolships, and considerations of complete seaworthiness in all weathers, and accommodation for the maximum number of cadets on a fairly lengthy cruise, had to be borne in mind, as well as sailing qualities. They are excellent sailers, I'm told, and all three Swedish entries will provide interesting competition for the swift *Creole*.

There are other entries which may do well, too, but, I confess, they are dark horses to me—like the Hollander *Maybe* and the Turkish vessel *Ruyam*, and a couple of small Argentinian vessels whose names are reported to be *Fortuna* and *Juana*. It is a game effort on their part—they are smallish vessels, I understand—to come so far for the race, anyway. The Argentine vessels are in the small class, as also is the Portuguese Ambassador's famous schooner *Bellatrix*.

The *Bellatrix* is a John Alden design, with a waterline length of 58 ft., built in the United States. If she were twice the size, she could give the *Creole* a run for her money. As it is, I think she may do very well in her class. She is an old friend of mine, and I hope to be with her again on this occasion, under the command of H.E. the Ambassador, Dr. Pedro



A swarm of cadets in the rigging of one of the competitors

Teothonio Pereira—no mean sailor, either—with a crew which is to consist mainly of Portuguese cadets. The *Bellatrix* is a lovely vessel and sails very well.

Pick of the bunch

The really interesting ships, from, I think, not only my own personal point of view but the general public's as well, are the big square-riggers, ships like the 3,000-ton Portuguese barque *Sagres* (a real old Cape Horner), the Norwegian full-rigged ships *Sorlandet* and *Christian Radich* and the Danish full-rigger *Georg Stage*, and the Belgian barquentine *Mercator* which, like the Swedish *Flying Clipper*, is British built. Five or six fair-sized square-riggers under sail in Torbay should be a magnificent sight, especially with the smaller schooners and ketches and three or four fine schooners to show them off to their best advantage.

The Norwegian full-riggers and Denmark's *Georg Stage* are especially interesting vessels. The *Sorlandet* is unique in being the only sailing school-ship left anywhere without auxiliary power. (All the others have engines of greater or less power, though some—as in the *Sagres*, for example—have not enough power really to make much difference to their handling in anything other than a calm or light air.)

The *Sorlandet* was sunk during the second world war but afterwards was salvaged and expensively refitted. This, indeed, was one of the first acts of the freed

Torbay to

Lisbon • • • • •

Norwegian merchant service, after the Germans and the Quislings had been tossed out. It is many years now since Norway ran a big Cape Horn fleet, though older seafarers will recall the splendid old Limejuicers which were so well kept and sailed in big fleets out of ports like Drammen, Arendal, Sandefjord, and Tvedestrand, as well as the larger ports of Kristiansand and Oslo.

Good for Norway

Even when there were plenty of the big Cape Horners to sail in, Norway still ran a sailing school-ship fleet as well and this included a stout old brig which was well known in Oslo for 50 years. This was the *Statsraad Erichsen*—now gone, like all brigs. Today Norway continues the sail-training tradition with lovely vessels such as the ships *Sorlandet* and *Christian Radich* (which hails from Oslo and was built in Sandefjord), and the Bergen barque *Statsraad Lehmkuhl* which, to everyone's disappointment, is not an entry.

The barquentine *Mercator* is well known in British ports, too. Like all these other sailing-ships, she is not maintained to teach youngsters the technical details of sail-handling, or of handling a ship under sail. That is not the point at all. The point is that these countries believe traditionally in the value of early experience in a sailing-ship because it is a *natural* experience, unique for character development, and full of the right sort of appeal for the right sort of sea-minded boy.

Expensive theory

They simply believe that they get better seagoing officers and seafarers by sticking to this indoctrination under sail. It costs a lot of money to maintain this theory, only a portion of which is provided by the taxpayer. Expensive or not, they stick to their guns and the assemblage of the sailing school-ships in Torbay is interesting not only for the beauty of the ships and the uniqueness of the occasion, but perhaps also for the object lesson therein contained and quietly underlined.

There are some notable absentees, but that could not be helped. I would very much like to see the United States Coast Guard's training barque *Eagle* at Torbay, and the interesting Italian *Amerigo Vespucci* (a 3,000-ton full-rigger built of steel but looking like an old three-decker), to say nothing of Spain's *Galatea* or four-masted topsail schooner *Juan Sebastian Del Cano*, Brazil's *Almirante Saldanha* (another British-designed, British-built big sailing-

ship), or the barque *Guanabara* (sister-ship of the American *Eagle*), the Polish *Dar Pomorza* (if she is still about), or Japan's big steel four-masted barque *Nippon Maru*. But all these school-ships have firm programmes to follow. They are not ordinarily available for racing, or for cruises outside their normal routine. Most of them sail as adjuncts to academies ashore, whose cadets they take off to sea at various times as arranged in a settled curriculum, which cannot be changed because somebody comes along with a good idea.

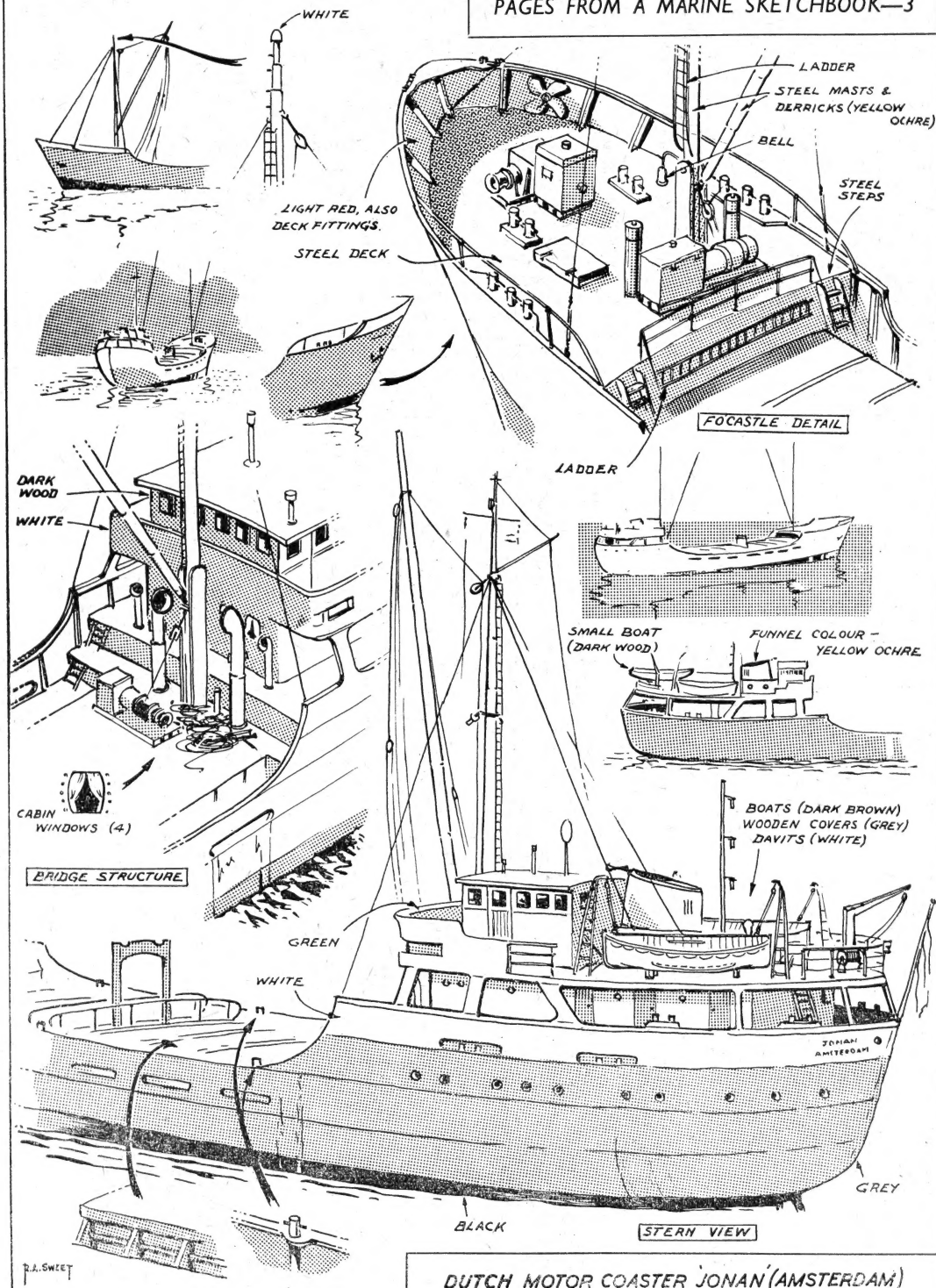
Tight programme schedules

The Japanese training-ship, for example, has a programme of cruises in the North Pacific which she can manage very nicely, but to sail the whole long voyage to England to take part in the race would disrupt the entire schedule. The same thing goes for the beautiful new Chilean four-master, the *Esmeralda*, except that in her case she sails the South Pacific. The U.S. Coast Guard barque *Eagle* usually comes across to Europe in the summer and, in the normal course of events, would be able to fit in with the race. But this year it was arranged for her to go to Central America and the West Indies, returning by the round-about way of Halifax in Nova Scotia. So that was that. All ports for these national ships, which are flag-showers as well as school-ships, have, very naturally, to be arranged and cleared by their own foreign departments, and this may take time.

So it is a most creditable performance to assemble so good a fleet as is being assembled this first week in July. More than that, it is a very nice gesture towards the country which conceived the idea, and to the country to which the ships will race—Britain and Portugal, two of the oldest and, each in her own way, greatest maritime powers in the world. ⚓



A magnificent shot of the Portuguese school-ship SAGRES



Building an early Sixth Rate

Masts and rigging, together with their attendant fittings, form the subject for this instalment by R. J. COLLINS

THE fore and main masts are woolded—that is, bound around at intervals with rope. For this model 12 turns of black thread for each band will do admirably. Above and below each of these, on the real ship, was nailed a wooden hoop, slightly thicker than the ropes and about two ropes wide. These hoops can be made of paper and should be painted black.

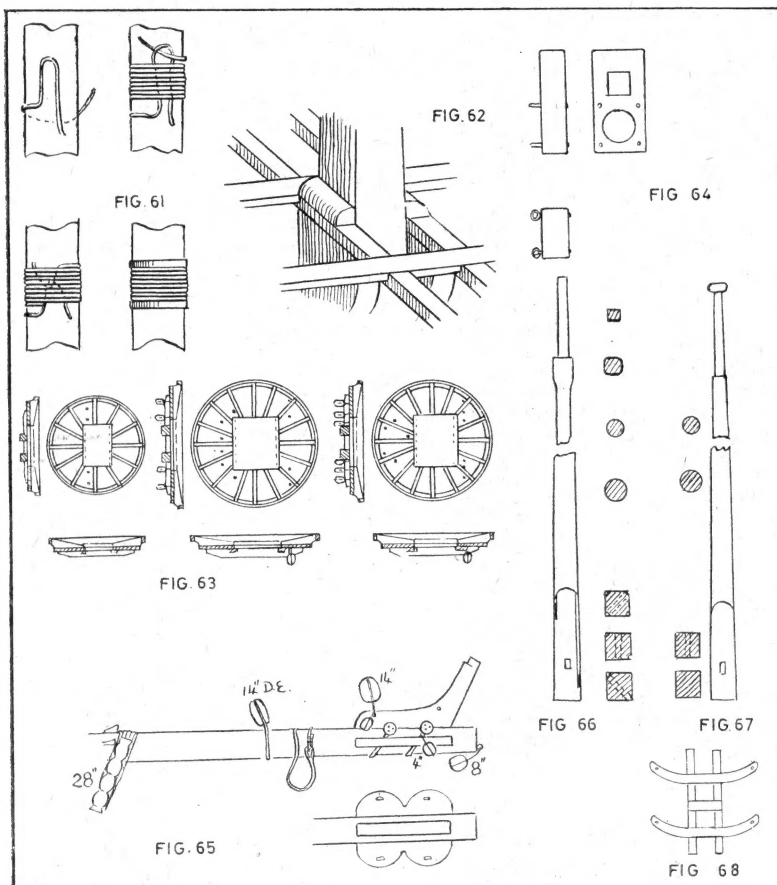
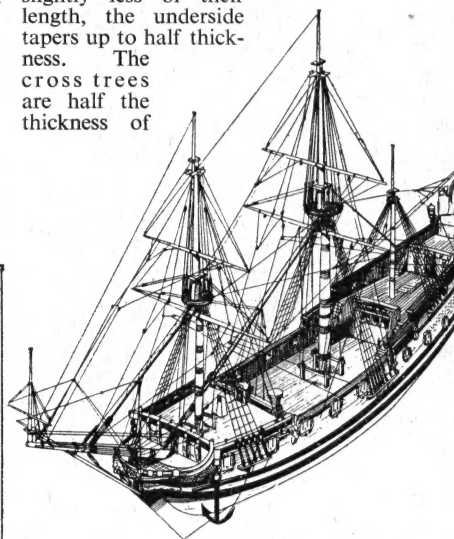
Spacing for the wooldings is: foremast, the lowest band with its lower edge 2 ft. 6 in. above the fo'c'sle deck, the top band with its upper edge 3 ft. below the hounds. Four more bands are equally spaced between

these. Mainmast; bottom band with its lower edge 4 ft. above the deck, topmost band as for the foremast. Five more bands are equally spaced between these. There are no wooldings on the mizzen mast. The bowsprit was not always woolded, particularly for the smaller ships and so I have left them off (Fig. 61).

Just below the masthead, with their upper edge corresponding to the hounds, are the cheeks—these are large brackets which help to support the trestle trees. The sizes are; foremast, 2 ft. 6 in. high $\times$ 2 ft. wide $\times$ 5 in. thick; mainmast, 2 ft. 9 in. high $\times$ 2 ft. 3 in. wide $\times$ 5 in. thick; mizzen mast, 2 ft. high $\times$ 1 ft. 9 in.

wide $\times$ 3½ in. thick. I should peg these to the masts.

The trestle trees and cross trees rest on the cheeks, the trestle trees running fore and aft and the cross trees athwartship. For a quarter, or slightly less of their length, the underside tapers up to half thickness. The cross trees are half the thickness of



the trestle trees and are let into the top of them. Their other dimensions are the same. Measurements are as follows; foremast trestle trees 5 ft. long $\times$ 5 in. square, main mast 5 ft. 6 in. long $\times$ 5 in. square and mizzen mast 3 ft. 9 in. long $\times$ 3½ in. square.

Looking at the tops

Resting on top of the trees are the tops which for this period were completely circular. There was a rectangular lubber hole not quite in the middle and radiating from this was a number of brackets. These were 2 in. thick and tapered from 2 in. to 6 in. at the end which overhung the top by about 2 in. These were shaped to support a rim which gave the whole top the appearance of a slight unorthodox spoked wheel. Fig. 63 shows the top more clearly than I can describe it. The sizes were: fore, 6 ft. dia., lubber hole 2 ft. 6 in., fore and aft $\times$ 3 ft. and 2 ft. 6 in. from the after edge of the top; main, 6 ft. 6 in. dia., hole 2 ft. 9 in. $\times$ 3 ft. and 2 ft.

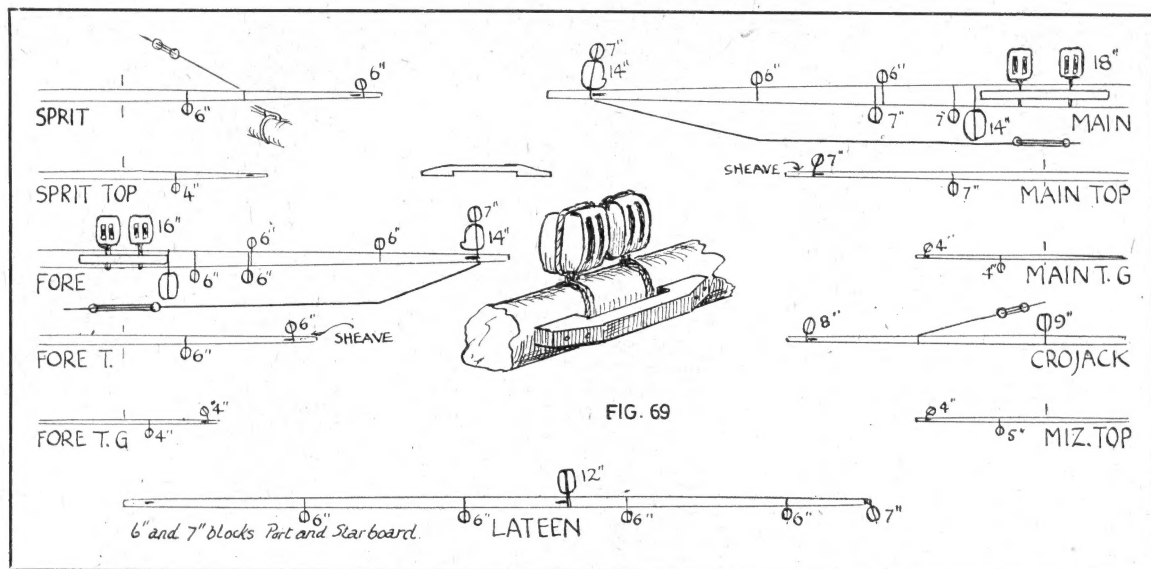


FIG. 69

7½ in. from the after edge; mizzen, 5 ft. dia., hole 1 ft. 9 in. × 2 ft. 6 in. and 1 ft. 10½ in. from the after edge.

Various holes are made in the floor of the tops, some for the passage of ropes and others to allow for blocks. These holes are shown in the sketch. There is a considerable strain on the top from the dead eyes of the top mast shrouds and every endeavour should be made to secure the top to the trees and the trees to the mast.

Mast caps I make from black Perspex as I find wooden ones so easily split, particularly in the smaller sizes. Bowsprit 2 ft. × 1 ft. × 6 in.; fore 2 ft. 9 in. × 1 ft. 4 in. × 8 in.; main 3 ft. × 1 ft. 6 in. × 9 in.; mizzen 2 ft. × 1 ft. × 6 in. All the edges and corners to be slightly rounded. The fore and main caps have a pair of eye bolts either side (Fig. 64). The cheeks, trees, tops, heads and caps all to be painted black.

In place of a mast head for the bowsprit is a large knee with 3 ft. arms, the vertical one shaped like a mast head. Also on the bowsprit the place of the trestle trees is taken by a flange or "bee" on either side of the end (Fig. 65). I only show those blocks in position that are better put on at this stage.

Top masts are more evenly tapered but the cheeks are replaced by a swelling which is about the same diameter as the mast at the lower cap—that is, very slightly smaller than the thickest part. Beneath this swelling, a sheave is inserted (on the model a hole is bored) through which is rove the halyards of the topsail yards. The heel of the mast is square and for the fore and main has a pair of sheaves set diagonally for the top ropes. A hole

for the fid is set through athwartship. Lengths and thicknesses of the top masts: 29 ft. × 9 in. thick, head 2 ft. 9 in.; main 33 ft. 6 in. × 10 in., head 3 ft. 6 in. (Fig. 66); mizzen (with only the bottom tope rope sheave) 19 ft. 6 in. × 6 in. This mast matches the top gallants for design. The fid holes are 2 ft. 6 in. from the heel for the fore and main and 2 ft. for the mizzen (Fig. 67).

Cross tree shapes

Trestle trees are of the same shape as the lower ones, but the cross trees are slightly crescent shaped, sweeping aft. There are two of these, one in front and one behind the masts. A chock is fitted between the mast head and the heel of the top gallant. The cross trees are half the thickness of the trestle trees and I find it best to make them of thin plastic. Fore trees: 2 ft. 6 in. long × 3 in. square, main 3 ft. long × 3 in. square (Fig. 68). Mast caps: fore 1 ft. 6 in. × 9 in. × 4 in., main 1 ft. 9 in. × 10 in. × 5 in.

Spritsail top mast 12 ft. 6 in. × 4½ in. About 1 ft. 6 in. down from the top, the mast is narrowed to form a shoulder; 9 in. down from this is a sheave for the halyard. The heel is square for about 1 ft. and is cut at an angle to fit the bowsprit.

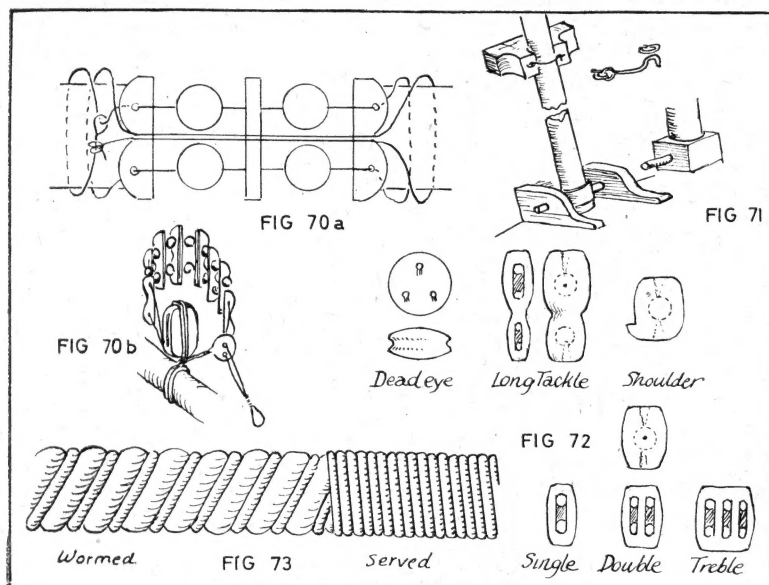
Top gallant masts are of the general pattern shown in the illustration of the mizzen top mast (Fig. 66). The heel is square for 1 ft. and just above this is the hole for the fid. The top is narrowed to form a shoulder 1 ft. 6 in. down. Just below the shoulder is a sheave for the halyard. Fore top gallant 12 ft. × 4 in. thick, main 15 ft. × 5 in. The extreme tops of the

masts were finished off with buttons, known as trucks. There was probably a sheave at one side for the signal halyards. In size I make their thickness the same as the given thickness of the mast upon which they rest and with a diameter of twice this. Usually gilded. The doublings of the top and top gallant masts are painted black, as is the part of the top gallant above the shoulder.

At this period the yards (Fig. 69) were round throughout their entire length. The size given is for the diameter at the middle, known as the slings. The ends, known as the arms, were one-third of this. Towards the ends were small stops, one either side and parallel to the deck. The sizes of these cleats I suggest should be one third of the diameter of the yard arm in thickness and twice the diameter of the yard arm in length. At the slings of the fore and main yards is a different shaped cleat in the form of a bow attached at each end. This was to confine the jeer ropes.

Facts and figures

Dimensions: sprit 26 ft. 3 in., slings 6 in., cleats 1 ft. from end; sprit top sail 13 ft. 6 in., slings 4 in., cleats 6 in. from end; fore 36 ft., slings 10 in., cleats 1 ft. 6 in.; fore top 18 ft., slings 5 in., cleats 1 ft. (there is a sheave in the arm halfway between the cleat and the end); fore top gallant 9 ft., slings 2½ in., cleats 6 in. Main 46 ft. 6 in., slings 1 ft., cleats 2 ft. from the end; main top 24 ft., slings 7 in., cleat 1 ft. 3 in. (sheave as fore top). Main top gallant 12 ft., slings 3 in., cleats 6 in. from the end; mizzen lateen 34 ft. 6 in., slings (about two-fifths from the heel) 6 in.,



cleats (at peak only) 1 ft. from the end; crojack 24 ft. 6 in., slings 5 in., cleats 1 ft. from the end; mizzen top 12 ft., slings 3 in., cleats 6 in. from the end. All yards black.

The horn shaped cleats at the slings of the lower yards are 3 in. thick and 4 in. high. The outer quarter is tapered down to half the height. The opening in the middle is 2 in. high and half the length of the cleat, which is fore 5 ft. and main 6 ft. A pair of stop cleats on the mizzen lateen prevents the jeer rope from slipping. There is an iron band around the heel through which is an iron bar extended about 6 in. either side. These engage in a couple of ring bolts and form a hinge. Higher on the stern is a wooden block and latch which secures the butt (Fig. 71).

Ensign staff 18 ft. long, tapering slightly from a 4 in. base.

Securing the yards

The yards are held to the mast by parrels—a contraption that always reminds me of a string of beads. For a ship of this size each parrel consists of two rows of balls (trucks) and a number of ribs (Fig. 70). I use small beads for the trucks and celluloid for the ribs. Although this is cheating I only use one string of beads for the smaller yards. For the two lower yards the ribs are a trifle longer than the diameter of the yard, and the parrel rope is threaded through them in a manner the drawing makes plain. There appears to be some confusion as to exactly how these were fitted, and this is just another guess. For the sake of clarity I have only shown three ribs and two sets of trucks. They

were probably painted black. The parrel for the lateen yard was slightly different and is shown in Fig. 70b.

Deane's draught shows a very small set of trees at the head of the spritsail top mast which, with a cap, support a jack staff. These are best made from thin celluloid or metal and are 1 ft. long and not more than 2 in. thick. I think it best to cut the whole set from one piece. Make the cap as small as possible and about 3 in. thick. The staff is 9 ft. long $\times$ 3 in. thick. If you fit this, make the head of the mast above the shoulder square and of course the truck would be on top of the staff. The fid near the heel of the staff could be a piece of a fine pin. Incidentally I make all my fids from metal.

Before we begin to set up the rigging it is best to get a stock of blocks. There are several ways of making these. One of the best is to cut a strip of wood to the width and thickness of the block, drill it at the correct intervals and part off. A variant of this is to use suitable thickness ply and drill with the central grain. If I use ply I use it broadside on instead of end to end. I find this makes it easier to get the exact size of the block. I build my larger blocks by making my own ply.

The dimensions of blocks, at least those below 12 in., appear to be 2-3-4, that is if the given size is 12 in., the thickness is 6 in. and the breadth is 9 in. A double or treble block follows that general rule, but with an additional two-thirds of the thickness for each extra sheave. Above 12 in. the blocks appear to get a little thinner although the other ratio remains the

same. Long tackle and sister blocks are the thickness of their parts. Thus a 20 in. long tackle is built up of a 12 in. and 8 in. block made as one long block, so the 12 in. part would be 6 in. thick and 9 in. wide while the 8 in. part would be 4 in. thick and 6 in. wide.

Battine does not mention any blocks by name except single, double, treble and long double (hereinafter called long tackle). There is evidence that the sheet blocks on the lower yards were shoulder blocks, that is had a projection on one side which prevented the sheet being nipped. I have not included such blocks as round (spritsail sheet) or clew blocks, as these do not appear to be mentioned before 1700 (Fig. 72).

Deadeye detail

Deadeyes are a problem for a small model. In size they have a diameter half that of the mast they support and a thickness a half of their own diameter. It will be seen that this model calls for some very small blocks. In telling you what I use, do not forget that I have already told you the correct size. For the fore and main I use $\frac{3}{16}$ in.; foretop, maintop and mizzen $\frac{1}{8}$ in. Deane does not show deadeyes for the sprit and mizzen top or for the fore and main top gallants.

I have made some very small deadeyes (about $\frac{1}{16}$ in.) from three-core solder which I parted off with a razor blade and cleaned very carefully. How they will stand up to time I do not know. I have had a few lying exposed in my workshop for nearly three years and up to now they show no signs of corrosion or perishing.

As a rough estimate here are the numbers and sizes of the blocks required. Do not be satisfied with just this number—you may need more, you certainly will not require less!

Deadeyes: 15 in., two; 14 in. two; large, 36; medium 50; small, 128 (and another 24 if you use them for the top gallants, etc.).

Single blocks: 4 in. 54; 5 in., 22; 6 in., 64; 7 in., 54; 8 in., 20; 9 in. six; 10 in. four; 11 in., one; 12 in., four; 14 in., 14; 16 in. two. Double blocks: 8 in. and 9 in., two each; 12 in., one; 14 in., 16 in. and 18 in., two each. Treble blocks: 6 in., one; 16 in. and 18 in., two each. Shoulder blocks: 14 in., four. Long tackle blocks: 14 in. and 15 in., two each; 16 in., four; 18 in. and 20 in., one each; 22 in., 24 in. and 26 in., two each.

Most of the blocks were stropped, probably only the pendant blocks on the braces were spliced direct to the ropes. In modelling, however, the blocks are usually too small for the average modeller to strop. Larger ones, say 14 in. or over, can be stropped with the rigging cord and

the smaller ones may be stropped if it is done neatly with wire but the wire must be painted. I paint or stain all my blocks black.

If you feel there are too many sizes given they can be reduced by cutting out the odd sizes, thus making a 6 in. block do for a 7 in., but never a large block to take the place of a smaller. Please note that this only cuts out the size—not the number of the blocks.

Making the ropes

Ropes can be spun up from cotton, in which case you can give yourself the correct cable or hawser laid ropes, or they can be purchased. If I were rigging a model for a museum—one that had to be as perfect as I could possibly make it—I would buy surgical silk, white and black. This at 2s. per reel is in eight sizes from 0000 to 4. Cable laid could be spun up from the smaller sizes and the white would have to be stained brown. These have the tremendous advantage of having no fluff but they are a bit wiry.

For a model up to ordinary standards Coate's crochet cotton is not too bad. This can be purchased at needlework shops and is sold in large balls, No. 100 to No. 3. No. 100 is about as fine as ordinary cotton but can be unravelled to three very fine strands quite easily. This stuff is rather fluffy but a good rub with beeswax gets rid of a lot of this. I have not tried Dr. Longridge's idea of burning off the fluff, but it must be successful if his model of the *Victory* is anything to go by—incidentally he used Silko.

The rigging can be roughly divided into two sections. Running and standing. To take the standing rigging first. This comprises all those ropes which once placed into position stay put. It consists of the shrouds, stays and backstays and a few little oddments, that is the ropes at the side, in front and behind the masts. It was usual to tar these ropes and thus in a model they are generally made from black or very dark brown material. Some of them were ordinary hawser laid, others were cable laid.

Laying the shrouds

Cable laid ropes were spun up from smaller hawser laid and so had to be set in the opposite direction. Shrouds looked as if they were cable laid but actually they consisted of four ordinary ropes spun cable-wise around a central one. I have not seen these ropes correctly laid up for a model. It is not unusual, even in "official models," to have all the ropes hawser laid.

Some of the standing rigging was further protected by worming, serving and/or parcelling (Fig. 73). Worming consisted of running small lines in the grooves formed by the three strands of the large ropes. Its purpose was to prevent water from lodging near the core of the rope and rotting it. It was usually found on the ship's cable (actually a running rope) and the larger of the stays. It is a tedious job to do, but worth it. Like well-made gratings, it seems to me to be one of those things which do so much to make a living model.

Serving a rope means winding a thin

line around it, completely covering it. It was used on ropes which were in danger of being chafed. Thus the forward lower shroud was generally served for its entire length as a protection against the lower yard and the sail. Another section which was generally served was the part of the shrouds that went around the mast head, and this was continued about halfway down to the futtock shrouds. These ropes were not always served on models but if you wish to do so make sure you use a very fine line and keep it as tight as possible, otherwise the whole thing will look clumsy and heavy.

Parcelling was bandaging the rope with a canvas bandage. The open ends of ropes were so treated.

Rigging question

Still keeping to the subject of rigging we pass from the standing to the running. This again can be divided by two, that which controls the yard and that which controls the sails. Personally I put all the rigging on my models, but if you feel it is too much, the last lot can be left off. I know quite a number of lovely models in which this has been done. In fact if your model is for "home consumption" and will not be in a glass case I seriously suggest that this rigging be left off as it makes the model less of a dust trap and also easier to dust. Now please don't write and say you disagree with me. It is your model and if you wish to rig it fully the details are here. It is up to you.

● To be continued



'MAN OF PEACE' EXHIBITION

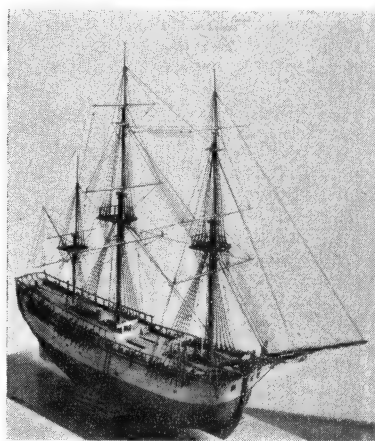


A portrait of Captain Cook. The painter is unknown

A SPECIAL EXHIBITION in Captain Cook's honour was recently opened in London by Sir Thomas White, the High Commissioner for Australia, at the National Maritime Museum.

Captain Cook is among the three best-known naval officers (Drake, Nelson and Cook) in history and this is an unusual honour, because he did not distinguish himself in a wartime operation. Instead, his greatest feat was a voyage of exploration—or rather non-exploration.

It is well known, of course, that he discovered Australia and New Zealand, but what is equally important is the fact that proved quite conclusively that there was no great southern continent—thus exploding the views of many geographers of the period.



A model of H.M.S. ENDEAVOUR BARK—Cook's first ship

the built-up ship model

BY T. L. WALL

AT ONE TIME I wanted to build a series of models showing the development of frigates from, say, 1650 to 1800. I think there is sufficient to go on in the way of drafts—in 1/48 scale ($\frac{1}{4}$ in.-1 ft.) it would take (reckoning one year to a model) about 25 years between types, say, six models, or about eight years allowing for breaks and a certain amount of research, but it would be well worth while and most interesting. If I did it, I would follow the dockyard fashion, that is open frames up to about 1750 and fully planked after.

Models of this sort are craftsman's work and cannot be hurried, each little bit must be the best work of which one is capable—if not, one will never be satisfied, whatever kindly critics may say about it.

Mind you, there is a danger of overfinishing, by getting a cabinet maker's finish rather than a shipwright's, for example. The only cure I know is to spend a long time studying the finish of the dockyard models. Surprisingly, perhaps, a ship-like finish is more difficult to obtain than the cabinet finish—one must be strong minded and know just when to stop.

As a rule the wood has to be stained with spirit stain (water stains raise the grain), and then the pores of the wood filled with pad-polish. I prefer the polish called garnet rather than the clear button. After each application the polish must be removed gently with the finest steel wool, holding a suitably sized piece in a pair of tweezers.

The pores of the wood must be filled but no polish should be left on the surface—not an easy finish to obtain, but worth it. Flat surfaces must remain flat and edges not rounded; not too difficult by any means, just think about what you are doing and, of course, take your

Notes on general construction, selection of wood, tools and glues

time. Broken shreds from the wool can be removed with a magnet.

One other thing. The wood must be the right colour before any polish is applied as no stain will take after. The polish will make it a shade darker (there is no harm in that) but it is not wise to rely on its doing so.

Such a collection of models as I envisage will take up room, and room is at a premium these days. There is another scale which may appeal and that is $\frac{1}{16}$ in. to 1 ft. In $\frac{1}{4}$ in. scale, *Charles Galley* works out at a shade under 3 ft. 2 in. long, in $\frac{1}{16}$ in. scale about $9\frac{1}{4}$ in.; $\frac{1}{8}$ in. to 1 ft. would be about 1 ft. 7 in. which would be a pretty length and not take up too much room, but I have no experience of this scale.

Each size has its problems. For instance, the rails along the side—in $\frac{1}{4}$ in. scale the mouldings can be reproduced, in $\frac{1}{16}$ in. scale they are obviously too small and can be ignored (the mouldings, not the rails) without making any difference to the looks. In $\frac{1}{8}$ in. scale I think they might have to be done, and it would be difficult.

Models of ships of the period in

question in $\frac{1}{16}$ in. scale are quite different to those described as miniature and I should imagine the technique required for those is different. In $\frac{1}{16}$ in. scale a reasonably skilled worker can follow the same methods and, with one exception, the same materials, as in the larger scales. Working to this scale it is the appearance that matters rather than extreme accuracy. In reason of course, stick to scale where one can, but do not go into a tizzy if one cannot. A suggestion is infinitely better than over-elaboration badly carried out.

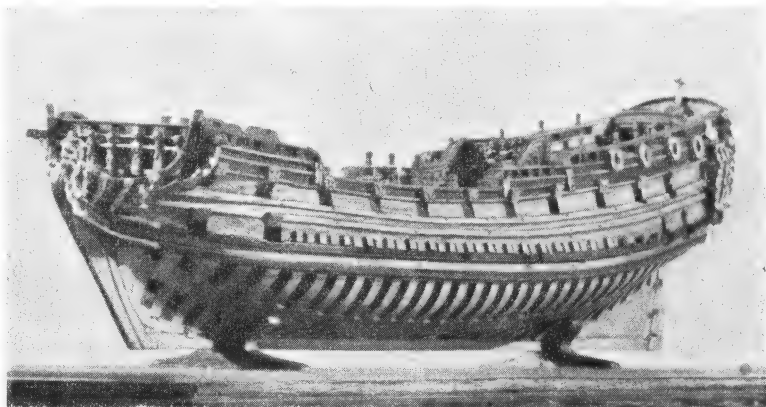
I built my model dockyard fashion with open frames—it is easier, the less planking to be done the better, though it can be done with patience. If any prospective builder shies at open frames, then a solid bottom built up bread-and-butter fashion, working to the draft water lines would be in order, but in that case it should be painted matt white below the water-line.

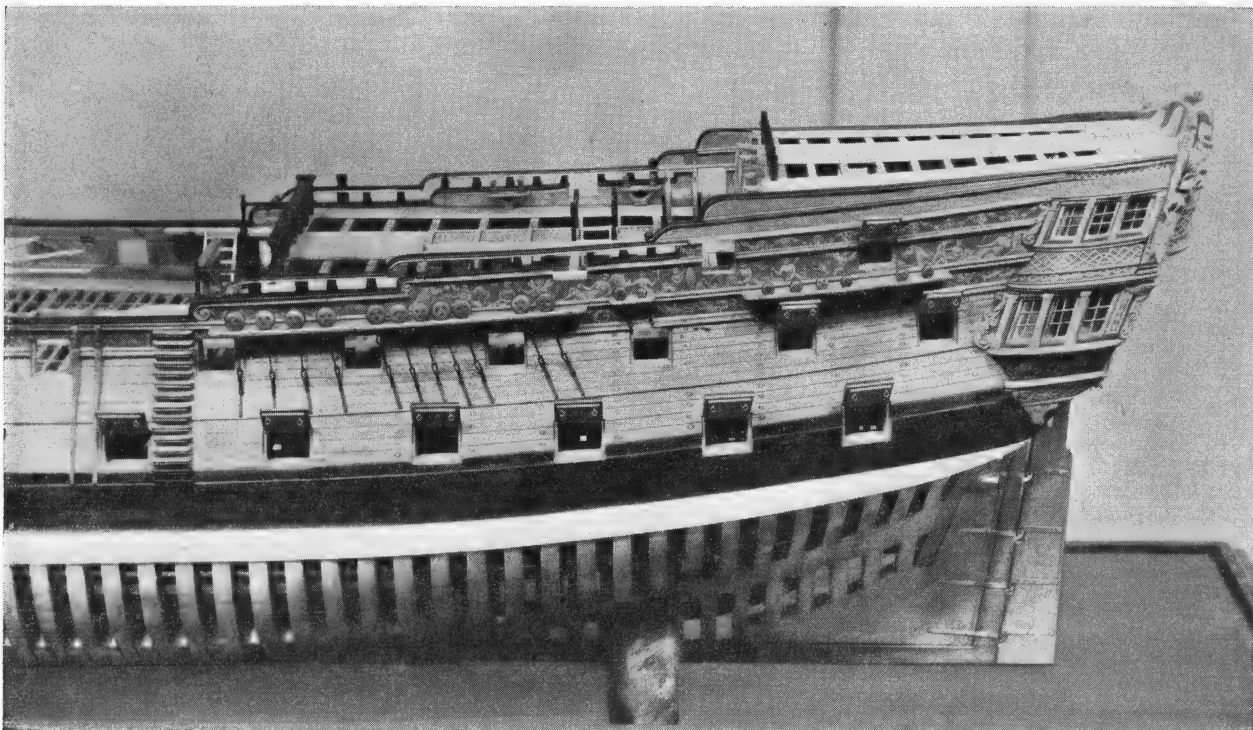
Paint with a good white undercoat and rub down with steel wool and soapy water. This will leave a shiny surface, so a final coat should be given using the thinnest paint which will cover. As frames will have to be built on above the main wales, I doubt if much would be gained by building with a solid bottom.

The fore and aft thickness of the frames would be $\frac{1}{16}$ in. plus $1/64$ in. for room— $3/32$ in. would pass. My frames were made of $\frac{1}{8}$ in. wood because I had it—they look a little too heavy and $3/32$ in. would have been better and more nearly correct. The model of *Charles Galley* was built in all respects as in $\frac{1}{4}$ in. scale, even to the deck beams, ledges and carlings, where the latter show. With the exception of the gratings, which will be dealt with later, no substitute materials were used nor required.

When it comes to what to put in and what to leave out, the builder

Proof of the pudding—the author's model of the CHARLES GALLEY





Close-up of the galley showing the immense attention to detail without falling into the trap of over-elaboration

is the best judge, always bearing in mind that if in doubt—leave out. Generally speaking, the simpler the model the more ship-like it looks. For the planking I used the cedar spills bought from tobacconists. They are the right colour and thickness—apt to sour one's temper a bit perhaps but that is one of the things that have to be put up with. Spills in white wood are also obtainable, but whatever wood they may be made of it is maddening to work with. Veneers can be bought in a variety of good woods, and, if I were to build another model in this scale, I should certainly give veneer a trial before anything else.

Bits of pear wood, holly and lime should be easy enough to get as such small sizes are required; the nearest hedge for holly, orchard for pear, and lime trees are fairly common. Take the bark off, cut into short lengths, put on top of the boiler for a week and Bob's your uncle, but cut in the winter when the sap is down.

I used sycamore for the frames and can recommend it, but it is not the only good wood by any means. So long as it is semi-hard, close grained and white or light brown in colour (stain is not satisfactory on a coloured wood) it should be all right. In my

opinion balsa is useless; so is plywood.

For fastening, use glue and the small pins, about $\frac{3}{8}$ in. long (some the "OO" gauge railway enthusiasts use), tap in the point, cut off, touch with a file to square the cut and tap home— $\frac{1}{8}$ in. or so deep is ample. The pins are brass and the last tap or two with the hammer gives a slight riveting effect which is all that is wanted. I use Seccotine because it holds the pieces in place while drying, which is a great advantage. It is not waterproof but after all one does not propose to play with the model in the bath!

Needle files are useful, in fact it would be hard to do without them, but I do not know where the right sort can be bought now. The ones wanted are the best Swiss, about 4 in. long—the ones sold on cards these days are really too large and too coarse. Before entering any pin always drill a pilot hole first; put a needle in a pin-vice and then touch on a stone so as to make it three-sided for about $\frac{1}{4}$ in. up. The hole should be slightly smaller than the pin.

Hammer for the job

The hammer to use is more important than most people seem to think—mine is about $\frac{1}{2}$ in. dia. on the flat face and ballpeened on the other. The head is $3\frac{1}{2}$ in. long and the handle 11 in. The point of balance is 2 in.

down from the top of the head. One may have to handle a dozen before finding one that suits. Given a tool with the right balance, one can tap in and rivet these tiny pins without any qualms and without bending or mis-hitting; without that balance, it is unnecessarily difficult.

A few of the smallest woodcarving tools are very helpful, indeed, in $\frac{1}{4}$ in. scale one can hardly do without them. They are often sold in sets but it is more economical to choose the ones wanted.

To shape the different mouldings on the rails in $\frac{1}{4}$ in. scale is one place where they are wanted. In $\frac{1}{16}$ in. scale the rails are too small. In both scales, fit the rails to the frames and the planking between—it is wrong to attempt to fix the rails to the planking. It is possible to buy small riffler files in the Clerkenwell Road (they might almost be called needle riffler files); all shapes and curves, these are the tools to smooth out gouge marks in the mouldings though this applies more to the larger than to the smaller scale. Sometimes scrapers cut to shape out of old hack-saw blades are recommended, but I prefer the riffler files.

Making the gratings

Earlier on I suggested that wood, and wood only, should be used in the

● *Continued on page 239*

The *Dromedaris*

A picturesque model of the ship
used by the founders of
Cape Colony . . . by
D. E. CLAPHAM

ON 6 APRIL 1952, just 300 years after the landing of Jan van Riebeeck, I started on my model of the ship that brought him to the Cape of Good Hope—a 200-ton “fly boat” of the Dutch East India Company—the *Dromedaris*.

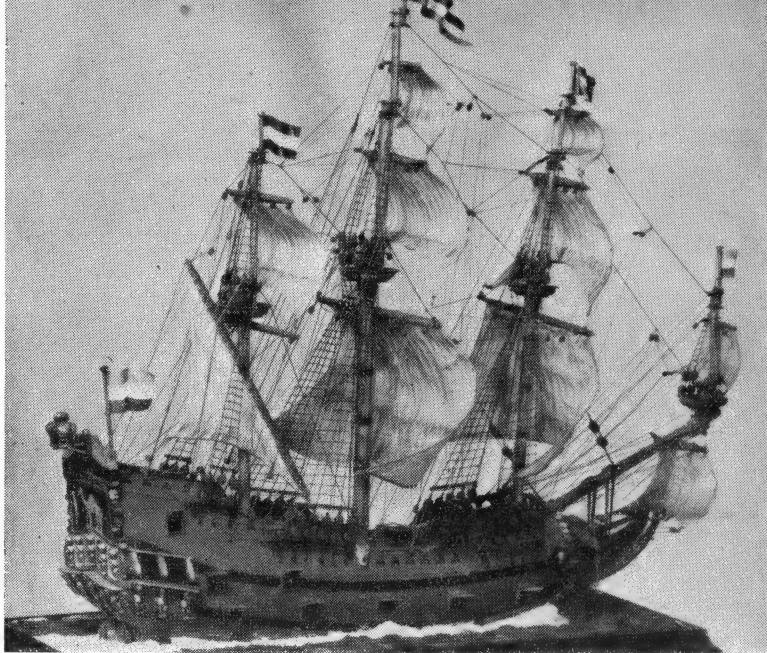
The model was built up on the bread and butter system and measured 23 in. from bowsprit to stern, with a beam of 4 in. and measured 21 in. from the waterline to the truck. She was a three masted ship fitted with a sprit-mast carrying a sprit-topsail and sprit-sail. Her foremast carried a fore-sail, foretopsail, and fore-top-gallant sail (her main-mast had the same rig), and the mizzen carried a mizen-topsail and a lateen sail.

Her long sweeping beakhead carried a rampant lion—it is carved from a piece of plastic—and the beakhead rails I made from cardboard which were given about four coats of paint for extra strength; the decks were made from plywood which I grooved to represent deck planks, filling each groove with Indian ink.

Ship's only boat

The main deck carried the only boat the ship possessed, and this I made from balsa wood and cardboard and mounted it on the main hatch grating, while the capstan was fixed aft of the mainmast. The quarter deck carried the steering whip-staff which, on Dutch ships, is open and not enclosed as in English ships of that period, while on the poop deck was fitted the jack staff bearing the flag of the Dutch East India Company.

The most interesting part of these old 17th century ships was the very ornate stern, and *Dromedaris* was not lacking in this respect. The centre of attraction was the “taferel” (Dutch for picture); this carried the emblem of the ship—a dromedary in natural colours against an emerald background and surmounted by a scroll bearing the wording: “Dromedaris ist myn naem.” On each side of this I carved a figure of a man and, above, the



figures of two crouching lions. Between these I fixed the solitary stern lantern. To finish off the stern I fitted 16 gilt cupids as supporters between the port, starboard and stern windows of the great cabin.

The sails I made from washed-out tracing linen, ironing them out so as to retain a certain amount of starch for stiffness. The flags I made from foil paper cut to double the size of the flag, then painted, folded over and glued and, finally, waved to represent a flag in the wind.

Birth of a nation

While I was building this model I found myself continually repeating the history of the ship to friends; so I decided to write it in a decorative way on a board to slide in under the base of the model, and here following is the condensed history of the ship and the part it played in the founding of South Africa:—

On 24 December 1651 *Dromedaris*, a 200 ton “fly boat” of the Dutch East India Company, with the *Reiger* and the *Goede-Hoop*, left Texel, Holland, bound for the stormy Cape. Among her passengers was one Jan van Riebeeck, who was making this voyage under orders from the Council of Seventeen of Amsterdam, to form a half way house to India and the Spice Islands of the East. On April 6, after a voyage of calms and storms and after nearly foundering due to a shifting cargo, *Dromedaris* dropped anchor in Table Bay.

With Jan van Riebeeck, an ex-ship's surgeon in command, the “Tavern of the Seas” was soon

able to produce fresh water and vegetables for the scurvy-ridden ships on their long, arduous voyages to and from the East Indies. Although these settlers did not even dream of it, a new nation was born—South Africa.

It is interesting to note that exactly two months after the landing of these settlers, the wife of Willem Wylant, a passenger on *Dromedaris*, gave birth to the first European child on South African soil.

Modelling series

This model gave me the idea of building a series of ships that were connected with the history of South Africa, and my next model was the *San Gabriel* in which Vasco da Gama rounded the Cape in 1497. This was followed by a model of James Lancaster's *Edward Bonaventure*, the ship that brought the first Englishmen to South Africa—in 1591. Then I built the *Conch*, the ship that took our hero Dick King back to Durban after his gallant 600 miles' horse ride to get relief for the besieged town in 1842.

After this I built the *Ariel*, representing the clipper ships that sailed around our shores in the second half of the 19th century, and at present I am busy on a model of the *Alabama*, an American Confederate raider that was responsible for the capture of the *Sea Bride* within sight of the residents of Cape Town in 1863. To this day the song “Daar kom die *Alabama*” (“There comes the *Alabama*”), composed after this historic event, is sung at parties in the cities or around camp fires in the veld.



P. A. VICARY

The Soviet destroyer SOVERSHENNY which formed part of the escort to the ORDZHONIKIDZE



Naval Photograph Club

THE VISIT OF the Soviet warships to Portsmouth last April will be remembered for a long time if only for the mystery of frogman Commander Crabb.

The Soviet warships created a great attraction to the public who were allowed to visit the ships during their stay. They are fine looking vessels—very clean and smart with scrubbed canvas screens on bridges, ladders and gangways. The *Ordzhonikidze* is of the same class as the *Sverdlov*—a cruiser of entirely conventional design and type, and there is nothing new or mysterious about her design or armament.

She has bigger tonnage than our own largest cruisers, but all warships design is a compromise. For a given tonnage you can only have so much armament, protective armour, speed and cruising range. The Russians have settled on cruisers with a most formidable armament—12 6-in. guns in triple turrets—and it was noticed that the *Ordzhonikidze* has optical range-finders—two in each director and one in each of the four turrets, a total of eight. She has radar as well.

The Royal Navy relies entirely on radar for ranging and has discarded optical range-finders as being obsolete. The Soviet cruiser has a considerable number of anti-aircraft guns, 10 torpedo tubes and a lot of mines, stowed between decks. A very large ship is required to carry so many weapons.

The destroyers *Sovershenny* and *Smotryashchi* are smaller than our Daring class ships and are comparable with the Battle class. Like the cruisers, and in fact nearly all Soviet warships, they carry mines. They

have an ice-breaker bow and carry rather more radar equipment than British destroyers.

It has been announced that all submarines built in the U.S.A. in future will be nuclear powered. The second atomic submarine *Sea Wolf* has been commissioned.

* * *

The first of the post-war operational type submarines of the new Porpoise class, H.M.S. *Porpoise*, has been launched at Barrow. She has a length of 295 ft. 3 in. and a beam of 26 ft. 6 in. She is to be powered by Admiralty Standard Range diesel-electric engines. The electric propulsion system is by the English Electric Co. Ltd. and is of a much more advanced design than hitherto used.

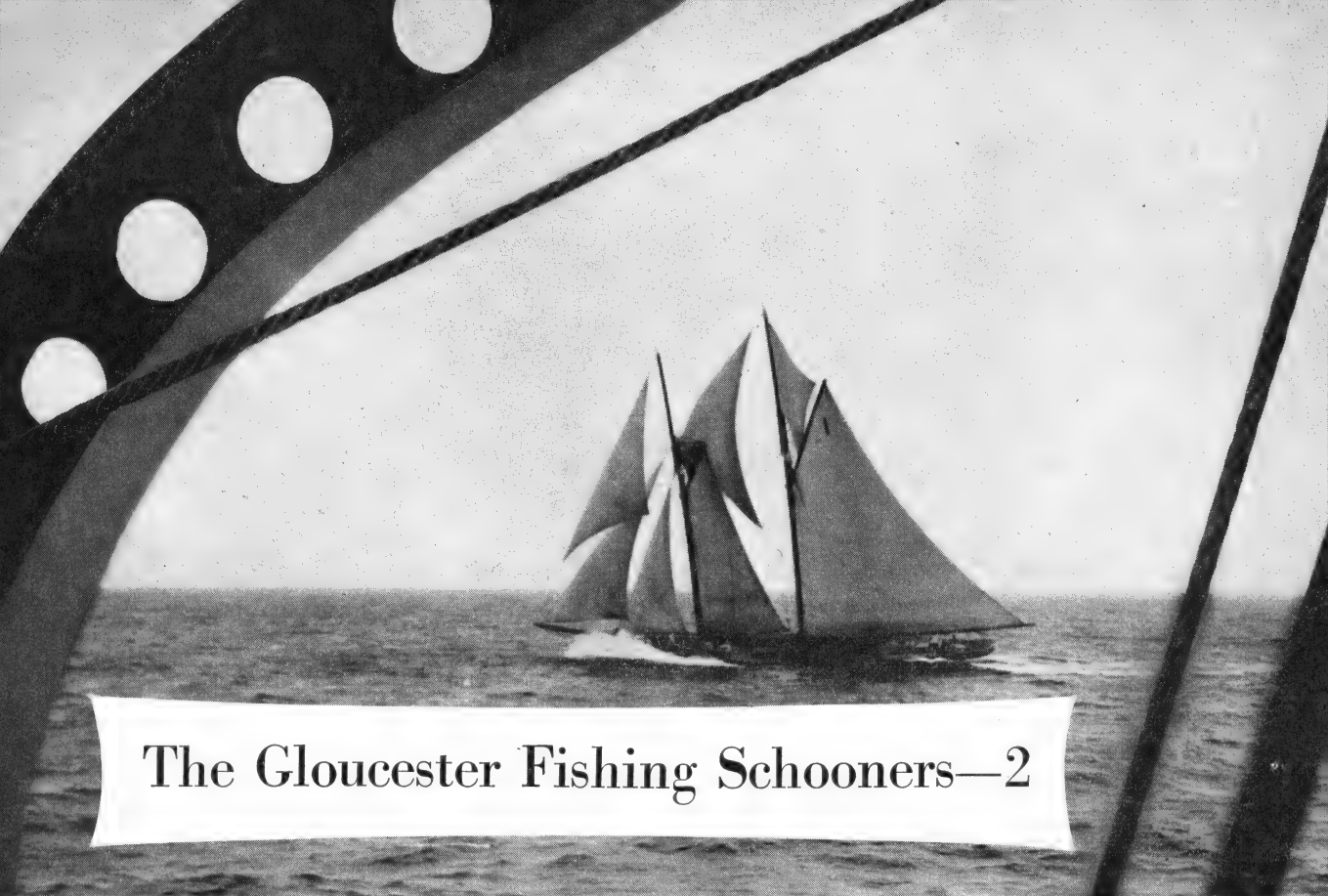
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The new anti-submarine frigate *Palliser*, 1,300 tons, has been put afloat at Govan on the Clyde, while the *Dundas*, second of the Hardy class, and the *Torquay* of the Whitby class have joined the Fleet.

* * *

The frigate *Redpole*, while visiting Copenhagen, collided with King Frederik of Denmark's Royal Yacht *Dannebrog*, 1,128 tons (ex *Philante*). The *Redpole* struck the yacht's clipper bow, tearing off the crown figurehead and bowsprit and causing the yacht to drag her anchor. *Redpole*, which sustained damage to her propellers, had to go into the naval dockyard to have repairs made to her propellers before she was able to return to this country. *Redpole* is commanded by Lieut. Commander M. R. Collins, R.N.





The Gloucester Fishing Schooners—2

IN THE DESIGN of a fishing schooner certain features were requisite: speed, weatherliness, seaworthiness and the ability to lie quietly when hove-to.

With such a perishable cargo as fish, speed was essential when racing to market against a fleet of perhaps 20 to 30 sail—the last in were not likely to obtain the best prices. With dangerous shoals in the vicinity of the fishing grounds, it was vital that a schooner could claw off a lee shore and she had to be able and seaworthy to face the worst gales in the stormy North Atlantic. Another attribute required was the ability to lie-to quietly when the dories were out, fore-reaching at sufficient speed to prevent violent yawing about. Here the schooner rig showed to advantage as a vessel would heave-to comfortably under foresail and staysail (jumbo in Banksman's parlance).

Scantlings were heavy, with planking up to 3 in. thick. Hulls were usually built during the winter months, launched in early spring and fitted out in a week to 10 days.

The clipper-bowed schooners of the 1890s frequently had fore and main masts almost the same height, 74 to 76 ft. overall, with 10 ft. mastheads, but by the turn of the century the length of the mainmast had increased from 76 ft. to as much as 86 ft., deck to cap, 18 in. dia., with foremasts 63 to 67 ft. and mast-

heads up to 14 ft. 6 in. Proportions varied in different vessels, the average difference in height between fore and main masts being about 10 ft. Mainbooms were often 73 to 75 ft. long and 13 in. in diameter, main gaffs ranged from 35 to 46 ft., with topmasts up to 51 ft. and 10½ in. dia. Bowsprits were up to 32 ft. outboard and 15½ in. dia. before the introduction of the knockabouts, the biggest of which was *Catherine*, built in 1915, with a 78 ft. mainmast, deck to cap, and a 77 ft. boom.

The schooner rig is one of the fastest in the world off the wind, the highest speed being attained when reaching or with the wind on the quarter. *Arthur Binney* was known to log 12 knots all day with a strong wind and the sheets eased. *Nannie C. Bohlin* sailed from the north coast of Norway to Gloucester in 17 days, averaging 14 knots for four days, and 15½ knots for the last 220 miles.

She was built in 1890 by John Bishop at Vincent Cove, Gloucester, and was one of the largest schooners then fishing out of the port, measuring 110.2 ft. with a beam of 23 ft. 6 in. and she was the first to have round mastheads; previously all had been square.

In the famous transatlantic yacht race of 1905 for the German Emperor's Cup, one of the smallest competitors was the 15-year-old, 92 tonner, *Fleur-de-Lis*, 108 ft. L.O.A., and built on the lines of a Gloucester fishing schooner, with a 65 ft. main boom.

E. J. MARCH continues his review of the ships and men that defy the sea and weather to bring the fish to market

Left: BLUENOSE, the unbeaten holder of the International Fisherman's Trophy

Skipped by a fisherman, she crossed from Sandy Hook to Falmouth, 3,150 miles, in 14 days, 9 hours and 43 min., an average speed of $9\frac{1}{4}$ knots for the passage, doing 14 knots for one watch and 13 for two days and nights. The winner was the big three-masted *Atlantic*, which averaged 10.32 knots.

Putting on sail

Among fishermen, cracking-on was indulged in during the race for market, with distances up to 1,000 miles common. It needs little imagination to picture the exhilaration of such sailing, day after day, the schooners crashing through the seas, staggering under every stitch of canvas, then, perhaps, rolling heavily in a long swell with sails slatting and progress nil, then excitement rising as the breeze freshened and rivals raced bowsprit to bowsprit, the prize being the first to land.

To get the utmost speed out of his command, a racing skipper would shift the ballast fore or aft a pig at a time (about 1 cwt.) or fill spare barrels with water to get the last vital inch of trim at bow or stern. Loss of market meant more than loss of spars—one famous captain carried away over 20 topmasts and seven lower masts in his sail-carrying days, and a pair of Oregon pine spars cost over £100! The topsails were put over every time the schooner went about, the staysail shifted and sheets trimmed to the last inch.

In the 1880s the cost of a fishing schooner was about \$10,000 and a few successful trips saw the vessel paid for. Thirty years later \$15,000 to \$16,500 was not an unusual price to pay, but after the 1914-18 war, costs soared to \$30,000 to \$50,000 for the magnificent craft built with an eye to the international races.

Heyday of the schooner

After the war, the rivalry between Boston and Gloucester fishermen led to the building of some superb schooners. A syndicate of Boston fishermen yachtsmen commissioned W. Starling Burgess, one of the best known designers, to draw up the lines of *Mayflower*, which was built by J. F. James and Son at Essex in 1921. Her length overall, 143 ft., made her one of the largest schooners ever launched and she carried 10,800 sq. ft. of canvas, the leech of her huge mainsail measuring 104 ft.

For a Gloucester syndicate the same designer draughted the plans of *Puritan*, built in 1922 by the same Essex firm as her rival *Mayflower*. Her L.B.P. was 123.9 ft., breadth 25.7 ft., depth 11.8 ft. and draught 14 ft. 6 in. Her lines show hollow garboards, sharp rise of floor and rounded bilges, a fine entry

with a spoon bow sweeping at the waterline into a long, straight, raking stem. The keel was short for a hull of such size according to the old conception of long keel and slightly rounded forefoot, once considered essential if a vessel was to heave-to comfortably. The waterlines and buttock lines gave long sweeping curves, ensuring a sweet flow of water with minimum disturbance. A lovely design.

The sail plan was lofty. An 89 ft. deck to cap mainmast carried an immense vertical-cut mainsail with a 100 ft. leech, and bent to a 46 ft. gaff and a 75.6 ft. boom which extended 12 ft. over the taffrail. No light canvas to handle in fine weather, but think of reefing that enormous sail on a wild night with fierce snow squalls howling down and the lee rail buried in foaming seas. Seamanship of the highest quality was called for (and found) in the splendid crews who manned a Banks fishing schooner. Above the mainmast was a 51 ft. topmast, the foremast measured 77 ft. with a 45 ft. topmast, a gaff and a boom of 31 ft.

Sails cut and set superbly drove that graceful hull at speeds up to 16 knots, or ghosting along in calms, but *Puritan* wanted handling and her skipper, Capt. J. Thomas, was noted as a famous sail carrier. Alas, that such a magnificent combination should have met with tragic disaster a bare three months after her launching when, in dense fog, *Puritan* sailed over the northwest bar of the dreaded Sable Island and was wrecked with the loss of one man.

Puritan thus had no chance of showing her paces in the international races and to replace her, Burgess was asked to design *Columbia*, built by A. D. Story at Essex during the winter of 1922-23. Her sail area was 9,300 sq. ft., with a 78 ft. main boom. The giant spars were stepped in three hours, and a week after launching the schooner was ready for sea and proved to be about the fastest of the Gloucester contenders for the cup. It will be noticed that these three vessels were all named after famous defenders of the *America's Cup* in the late nineteenth century.

Dangers at sea

The toll of the sea was heavy. Besides the ever-present risk of being run down in fog by liners going at full speed to maintain scheduled times, dozens of fine schooners were wrecked on Sable Island, well named the graveyard of the Atlantic, while others met their fate on the rock-bound coasts. Many a man went missing in his dory when blanketing fog came down and hid all trace of his schooner; scores were washed off bowsprits when handling the big jibs, while "missing with all hands" was the fate of many an able Banks fishing vessel.

On arrival at the fishing grounds, sail is taken in, booms lashed amidships, anchor let go and a trysail set as a riding sail. Soundings are taken to ascertain depth and nature of bottom, the best fishing is usually in 25 to 30 fathoms on gravel. As a rule fishing is not done from the schooner but from the dories which are carried nested amidships, lashed to ringbolts, on each side of the main hatch. The dory is flat bottomed—15 to 16 ft. long—with flaring sides and a freeboard of about 2 ft. when empty; the thwarts are removable to facilitate stowage. Although very frail looking, dories are good sea boats being quite

capable of crossing the Atlantic. In 1876, Alfred Johnson sailed one to England in 96 days, with only about a foot of freeboard at start of passage.

Each dory carries two men and four tubs of coiled and baited lines, anchor and roding line. In each tub are nine lines of 50 fathom each, with about 90 hooks attached to snoods 2 ft. long. The usual bait is herring, caplin or pieces of cuttlefish. A smart man will bait a tub of lines in about half an hour, a complete line is called a "trawl" by Gloucestermen and "norman lines" by Nova Scotiamen. The dories are hoisted over the rail and lowered astern and let go at intervals, the two men balance on rail and await a favourable chance to drop—no easy job in winter, wrapped in jerseys, oilskins and sea boots.

Each rows away from the schooner, sometimes all in same direction, at others radial, like the spokes of a wheel. One man rows and the other throws out the lines, bending, all together—one end is anchored and the other buoyed with a distinctive flag, identifiable with a particular dory. Over two miles of line with about 3,200 hooks will be out, so that eight dories, the usual number carried, will set about 16 miles of line with over 25,000 hooks. The schooner now picks up all the dories and eight to 10 hours later drops them and each picks up her own trawl.

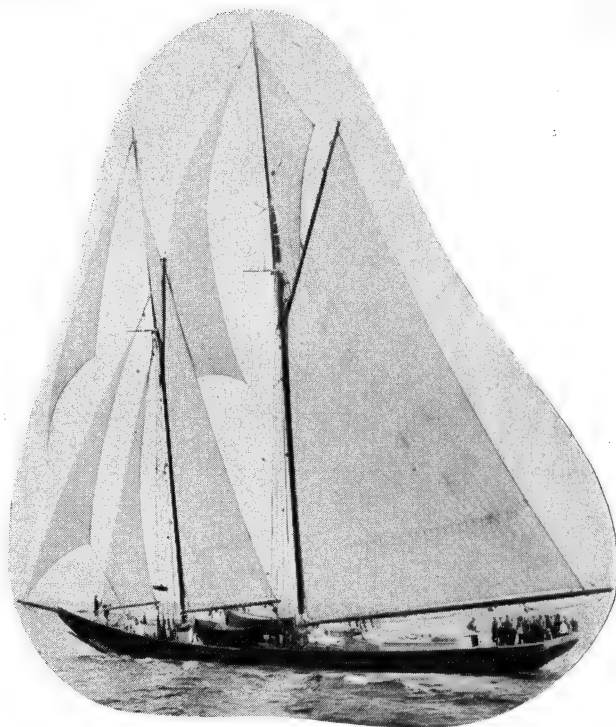
The man in the bows hauls up the line and snaps each fish off the hook back into the dory as it comes up to him, while the other coils the line back into the tub. As the dory tends to drift broadside to the seas, he keeps a sharp look out and if he sees a big one coming he seizes the oar, which is hanging in a becket at the stern and with a powerful stroke brings her head or stern on—failure to do this smartly may mean a capsize.

Stunned with a gobstick

Sometimes a big halibut, weighing anything from 200 to 400 lb., comes up as a variation from the cod. The fish are stunned with a heavy maul and the hook is wrenched out with a short wooden stick known as a gobstick. If fishing is good, the dory may be loaded down with 200 cod, averaging about 20 lb. apiece. The two men next row back to the schooner, which has been left in charge of the captain and the cook, as all the rest of the crew are out in the dories.

The cook, in addition to all his culinary duties for 20 or more hungry men with three meals a day, as well as several "mug ups" of tea, meat or pie, washes all the dishes, keeps the forecastle clean and holds the painter when the first dories come alongside. The fish are now pitched on board and kept in pounds on the deck to prevent sliding about. When all dories are back there will be thousands of fish, weighing anything up to 25 tons, to be cleaned and stowed away in the fish holds below, for now comes the long, wearisome job of splitting, cleaning and salting.

The crew divides up into gangs of throaters, gutters and splitters. The first man grabs the fish with one hand, holds it back on the edge of a tub and cuts the throat just behind the gills, slits down the belly and breaks the head off by heavy downward pressure on edge of tub. The fish now passes to the gutter, who opens the belly, tears out the internal organs, and removes the liver for making into the



PURITAN, a schooner with her nests of dories amidships

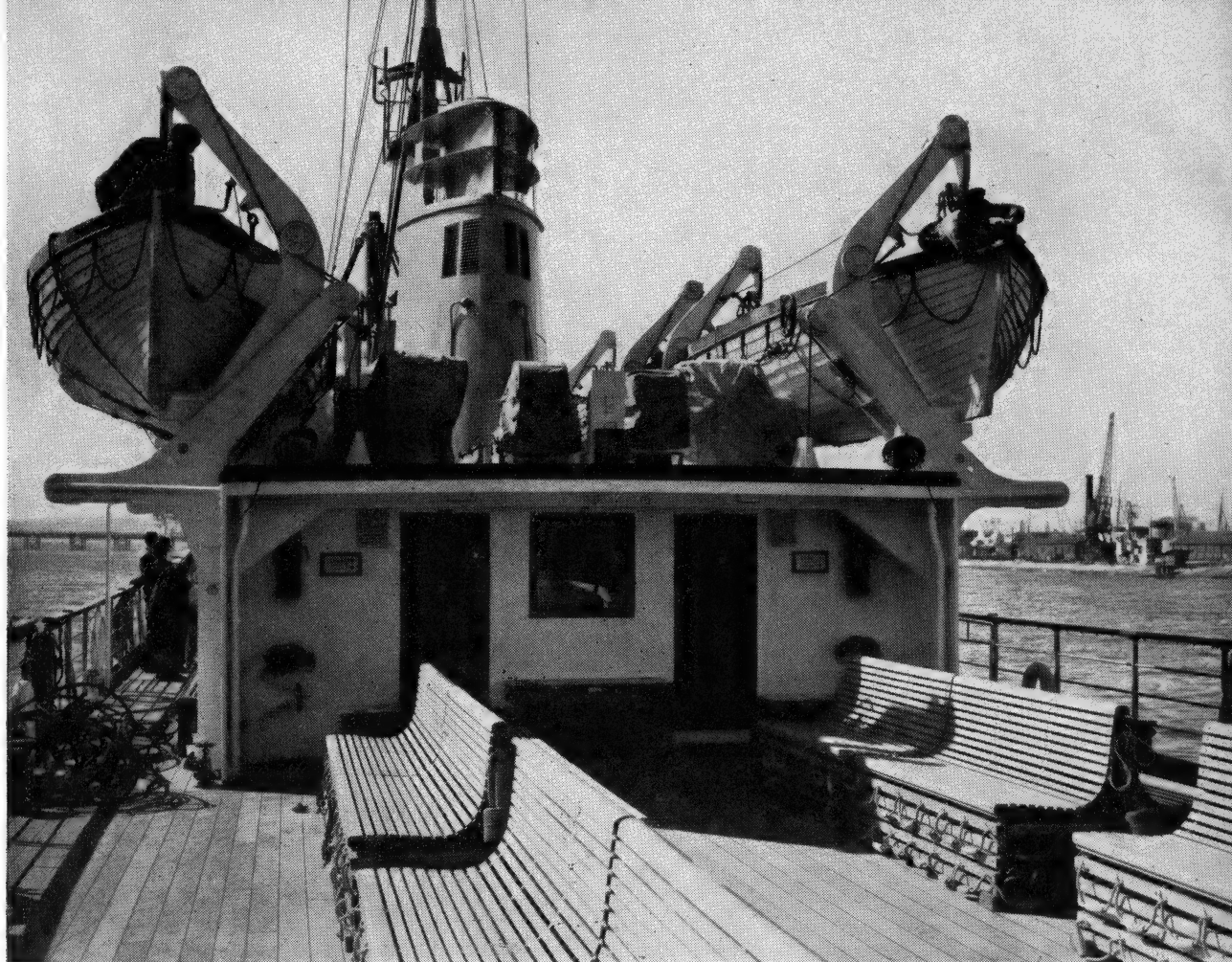
odious cod liver oil, of which some of us may have unpleasant memories of childhood days years ago!

The livers are put in casks, with hinged lids, known as the gurry butts, which are lashed by the forecastle. The splitter next takes the fish and removes the backbone. The fish is washed, all blood removed and then thrown down canvas shoots into the hold—on a market schooner to be stowed in ice, on a banker salted and piled in layers called kenches, head and tail alternately, with salt freely sprinkled between, 100 lb. of fish requiring about $1\frac{1}{2}$ bushels of salt. The refuse is thrown overboard, decks cleaned down, a few hours rest perhaps and the same old round again, week after week, until a full catch is aboard.

A hard life, especially in winter, when everything is coated with thick ice and spray freezes as it falls. The pickle, formed by the wet salt and the fish juices, drains into the bottom and is pumped overboard. The fish are landed, dried in the sun on the rocks and prepared for export.

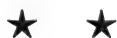
A smart market schooner reckoned to make one trip a week and come in with about 80 tons of fish packed away in 20 tons of ice. Gales and heavy seas do not worry fishermen half as much as fog or snow flurries, which are so prone to sweep down unexpectedly, blotting out everything. Maybe the dories are out miles away, unable to find their parent ship, although she sounds her foghorn continuously, and quarters the sea in search.

The dories may drift alone for days, in freezing cold with little, if any, food or water. Dory men have been picked up after eight to 11 days, yet so hardy that even after these terrible experiences they lived to go back to the fishing time and time again. ⚓



Shadows and sunlight on the aft promenade deck looking forrad

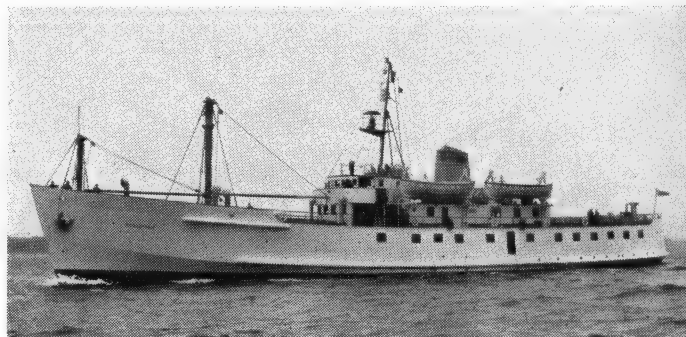
'SCILLONIAN'

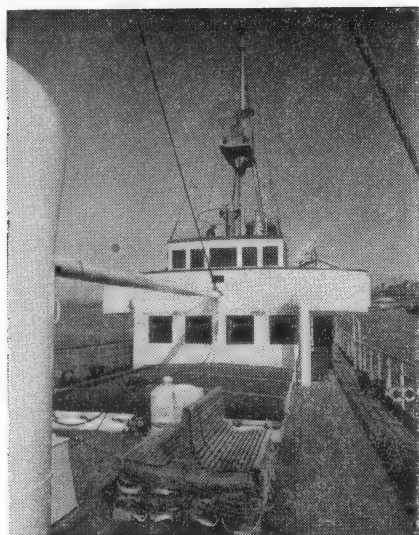


LAURENCE DUNN provides another of his well-known drawings together with pictures to describe the latest ship on the Penzance-Scilly service

LATE IN MARCH the Isles of Scilly S.S. Co. Ltd. took delivery of this new vessel which has been built at Woolston, Southampton, by J. I. Thornycroft. Launched by H.R.H. the Duchess of Gloucester on November 15, the ship was given the name of an earlier vessel owned by the company, which was rechristened *Peninnis*—this for the interim period until her actual replacement in service.

The ports of St. Mary's and Penzance, between which the new ship is designed to operate, are both small and impose severe limitations in length and draught so the nature of the trade calls for a dual-purpose ship which is able to carry large numbers of passengers during the summer season and also handle the islands' main exports, flowers (notably daffodils) and potatoes.



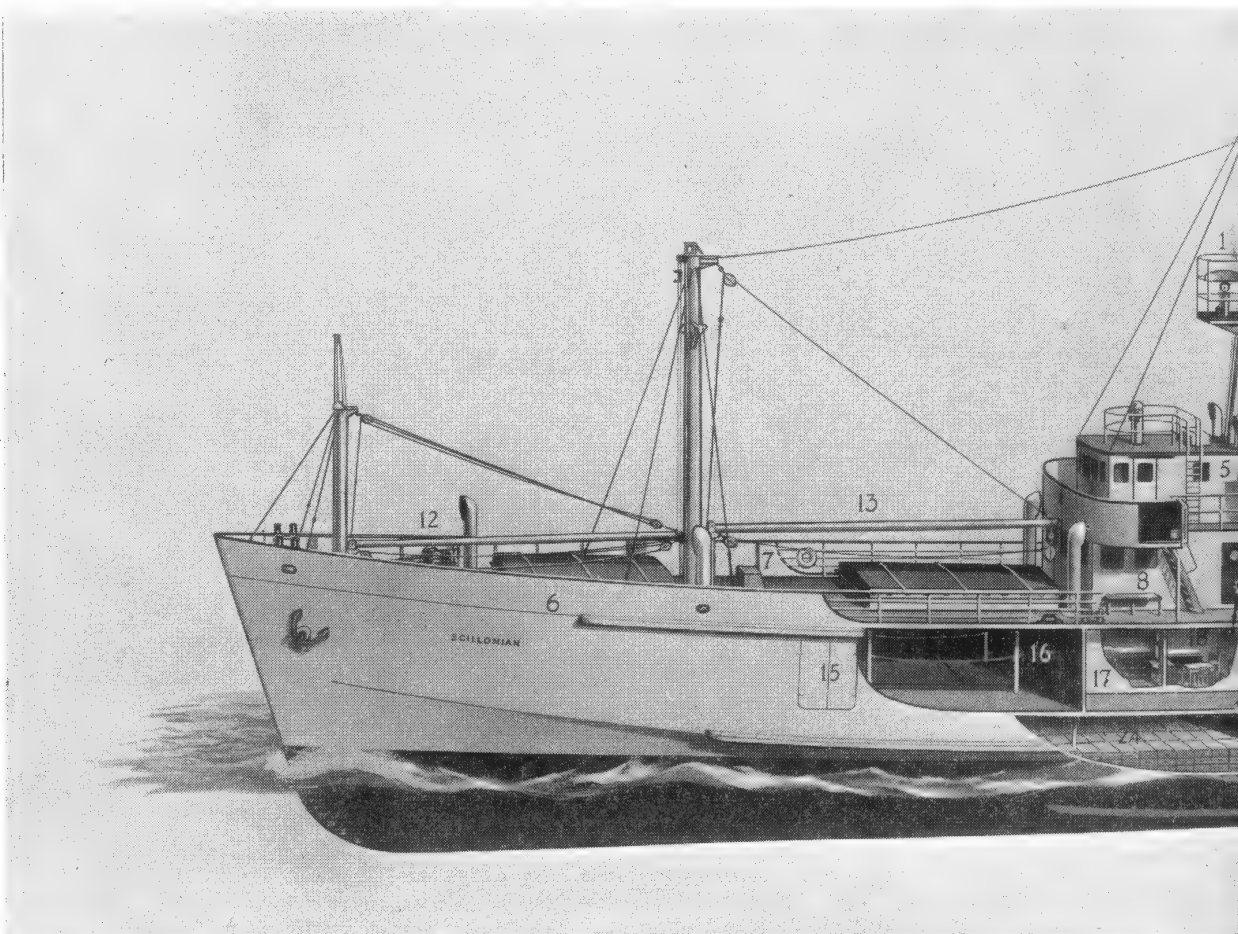


*A view of the
promenade deck
looking forward*

Hitherto the crossing has taken about three hours, but the new *Scillonian*—which attained $15\frac{1}{2}$ knots on trial—will be able to cut this appreciably. She has an overall length of 208 ft. 6 in., the waterline length being 200 ft. Her moulded breadth is 30 ft. 9 in., depth to main deck 13 ft. 9 in. and depth to promenade deck 21 ft. 3 in. Her gross tonnage is approximately 930.

Below the weather (promenade) deck, almost all of which is available for passengers, the forward part of the ship is devoted to cargo carrying. Here there are two holds and a large amount of 'tween deck space, the total capacity being 26,000 cu. ft. Side doors are fitted both to port and starboard. An interesting feature is that the two derricks—one to each hatch—are worked by combined slewing and hoisting winches which are electrically driven and placed on the upper deck. There is, therefore, a slewing shaft extending vertically from the heel of each derrick, through the promenade deck to the quadrant and winch below. When working cargo, the topping lift and whip are passed through a small hatch placed just over each winch.

Accommodation is provided for 500 passengers and a crew of 14. For the former there is a range of public rooms extending through the superstructure and on the decks below aft of the engine room. Starting beneath the



bridge house there is a most attractively furnished observation saloon with Oxford and Cambridge blues providing the main colour scheme, while an equally pleasant lounge bar opens off this. Further aft there is another lounge in which is a wide staircase leading to the upper deck and tea room. In the latter, another staircase leads to a further saloon below. One of the lasting impressions of this ship is the simple yet remarkably attractive decor of these public rooms.

Seats for passengers extend along both upper and promenade decks. Aft, the latter is clear of all obstructions such as hatches, etc., and permits the grouping of a number of long buoyancy seats.



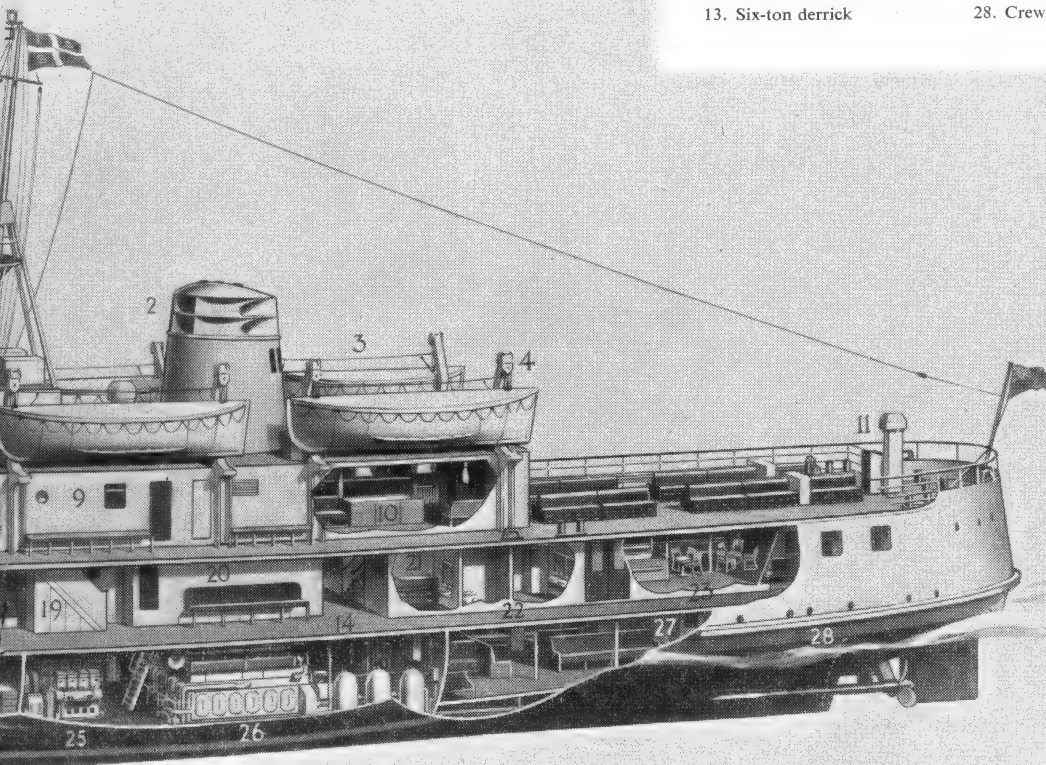
The main engines comprise a pair of Ruston and Hornsby six-cylinder diesels of four-stroke cycle airless injection design which are cold starting and are each connected to their own reverse and reduction gear. The combined output of these engines is 670 b.h.p., this at a propeller speed of 220 r.p.m. As the illustrations show, the hull has a pronounced knuckle, the object of that forward being to keep spray down to the minimum.

The vessel has white topsides, green boot-topping and yellow masts, kingposts and ventilators—the mouths of the last being blue. The name and port of registry (Scilly) are yellow. Almost all the exterior decks are planked, the scuppers being painted black. The hatch coamings are light grey, while the canvas tarpaulins over the hatches are green. The house flag is dark blue with a white cross and red letters.



KEY

- | | |
|---------------------------------|-----------------------------------|
| 1. Marconi radar scanner | 14. Main deck |
| 2. Thornycroft type funnel top | 15. Cargo doors |
| 3. 25 ft. wooden lifeboats | 16. 'Tween deck cargo space |
| 4. Schat type davits | 17. W/T operator |
| 5. Captain's quarters | 18. Officers' mess |
| 6. Promenade deck | 19. Galley (behind stairs) |
| 7. Hatch over No. 2 cargo winch | 20. Engine casing |
| 8. Observation saloon | 21. Purser |
| 9. Bar (lounge to star-board) | 22. Toilets (port and star-board) |
| 10. After lounge | 23. Tea room |
| 11. Escape trunk | 24. No. 2 lower hold |
| 12. Three-ton derrick | 25. Auxiliary generators |
| 13. Six-ton derrick | 26. Ruston main engines |
| | 27. Lower deck saloon |
| | 28. Crew's accommodation |



LAURENCE JENN —

PROJECT MAYFLOWER

EDWARD BOWNESS



TO THE SHIP modeller or to the student of the naval architecture of old time ships, probably the most interesting sight to be seen at the present time is the building of the replica of the *Mayflower* which is being built at Upham's Shipyard at Brixham.

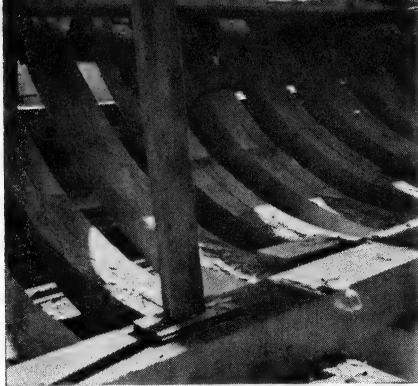
The only real departure from the dimensions of the original ship is in the height of the 'tween decks. Here, owing to U.S. official requirements in view of the fact that it is expected that in the States over half a million people will visit the ship, the headroom has been increased from about 5 ft. to 6 ft. It must be appreciated that there is no record of the dimensions of the original ship. It is believed that she served against the Armada in 1588 and that she was broken up in 1624 or thereabouts and it is known that she was normally employed in the Western European trade, and that her tonnage was about 180.

From this information and from the rather scanty records and plans and engravings of the ships of her period, it is possible to form a reasonably accurate idea of what the actual craft looked like.

Principal dimensions

The keel, which is approximately 15 in. deep $\times$ 12 in. wide, is in three lengths, with hooked scarphs about 5 ft. long. The keelson is 12 in. square. The stern post is 12 in. $\times$ 10 in. and the inner post 12 in. square. The stem is 12 in. square and the apron or inner stem measures 12 in. fore-and-aft $\times$ 18 in. wide. This gives a land on each side for the ends of the planks. The

*A general view from forward.
The planks have not yet been
trimmed or planed*



The frames and keelson. The ends of the floors and the first and second futtocks can be clearly seen



Deck clamps and lodging knees. The deck clamp and lining and frames are all shown



A view, looking forward, of the frame, which has not yet been fitted. Note the adze

frames are double, each half being 6 in. thick $\times$ 12 in. wide. They are built up with floors, first futtocks and so on, as will be seen from the picture. They are bolted together, as in the old days, the only difference being that galvanised iron is used for the bolts instead of copper, the cost of which is now prohibitive. The space between them is 12 in.

The knee of the stern post is a magnificent piece of timber and it must have been quite a job to find the crook from which it is formed. It must be 8 to 10 ft. long on the base and 6 to 7 ft. long against the inner stern post. The thickness is 12 in. and it must have called for skilful handling to shape it to get the perfect fit that has been achieved. The deadwood, on which the knee rests, is beautifully fitted.

As will be seen from the picture, the frame on the port side of the stem still remains to be fitted into place, the space having been left for convenience in hauling the deck beams on to the ship as they come from the workshop.

Looking aft along the main deck with the top timbers still not trimmed level

Deck clamps and beams

One of the deck beams was being fitted when I was there. It had just been swung into the ship and was being lowered gently into position. A little adjustment was necessary, so it was lifted out and swung round across the other beams, and one man with an adze trimmed the end where it fitted the deck clamp, while another trimmed the recess in the deck clamp into which it was being fitted.

The deck clamps were 5 in. thick $\times$ 12 in. deep, and below this the lining was of 3 in. oak. The wales, which were 5 in. thick and about 9 or 10 in. deep, were in position and also a few strakes of planking, but the rest was left open to give access for the internal fittings. Planking was of about 3 in. in thickness $\times$ about 7 in. wide. Trennels were being prepared, these being also of oak.

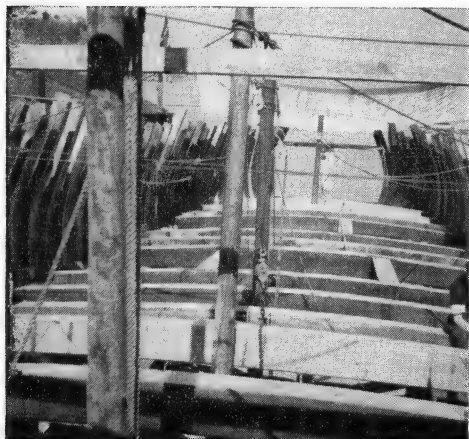
Some of the lodging knees were already in position and in the workshop I saw crooks sawn to thickness and marked out for making other knees—probably some were for the transom.

I was taken into the moulding loft and shown how, owing to the *Mayflower* being rather larger than most ships built there, the lines of the bows had been drawn to overlap those of the after body. Also, owing to the excessive tumblehome of the old type ship the upper waterlines crossed the lower ones, involving great care in working to them.

To make things clearer the number of each line was written on small paper discs stuck to the floor. I was also shown the template for marking out the angle of the floors—a triangular frame 5 ft. high and 10 ft. across the base. The outline of the keel was shown at the centre of the base and on each side was marked the angle of the frames, those for the fore-body on one side and those for the after-body on the other. The base was slightly curved to show the rise of floor at the midship section. The lines were drawn from plans prepared in America.

The ship is due to be launched early in September and will probably sail to the States in the spring of 1957. ⚓

Fitting a deck beam. The space left by the missing frame is readily apparent





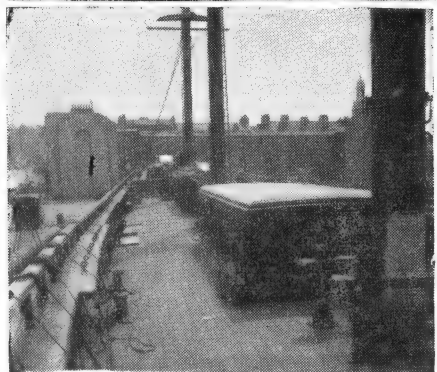
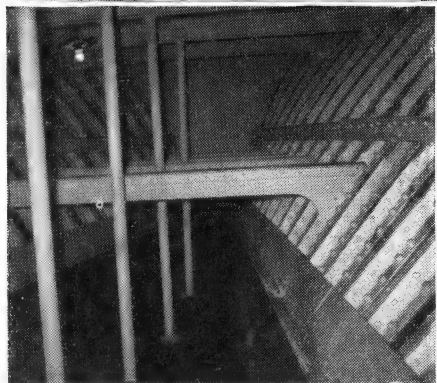
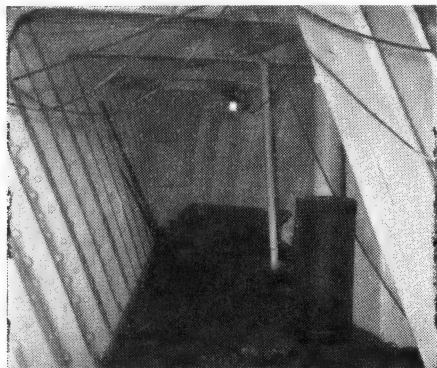
Top, left: In spite of the litter on the ship, a semblance of order is beginning to make itself apparent

Top, right: Deck beams, frames and bracing as seen from the lower deck

CUTTY SARK

. . . progress report

No. 5



TO THE AVERAGE PASSER-BY there would appear to have been little progress made with the restoration of *Cutty Sark* during the past few months. The masts are still as they were and, apart from the completion of the top-gallant rail on the bulwarks, there seems little difference in the hull.

True, the deck houses have been completed, but these are not very noticeable from the level of the dock. But great progress is being made. The two deck houses are almost complete, the poop deck and the sides of the cabin are nearly finished, and the steering gear is receiving attention. In the cabin, work is proceeding rapidly and much of the panelling has already been restored.

On the lower deck, the protecting panelling and rail has been completed and one can now appreciate the fine sweep of the lines from almost end to end of the ship. The frames and deck beams are being painted, as are the diagonal bracing strips on the outside of the frames. The ends of the ship have been cleared out and painted and, looking over the rail at the after end of the lower deck, the beautiful lines of the frames at the stern are most pleasing.

One picture shows the space under the fo'c'sle head at 'tween deck level and illustrates admirably the fineness of the bows of the ship. In the early days, this space probably accommodated the crew.

Top: A tangle of emergency power lines in the fo'c'sle head at 'tween decks level

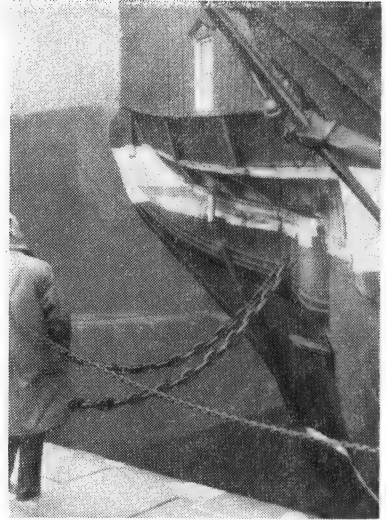
Middle: Building supports seen looking aft from the lower deck

Left: A view of the main deck looking aft

*The beauty of the stern and head
timbers is still discernible*

H.M.S. CRESSY

**The Navy's oldest ship afloat
is 132 years old and still going
strong—she is even equipped
with radar !**



AN OFTEN FORGOTTEN ship, H.M.S. *Cressy*, is the Royal Navy's oldest ship afloat. Along with the *Foudroyant* at Portsmouth, she is one of the last survivors afloat of Britain's famous "wooden walls."

She lies serenely at her berth in Earl Grey Dock, Dundee. Today she serves as the headquarters of the Tay Division, R.N.V.R. Originally named *Unicorn*, she was launched from the Chatham Naval Yard in 1824 as a two-deck frigate of 44 guns. She was never completed as such but remained in the Medway until 1873 as a powder hulk. She has neither honourable battle scars nor glorious engagements to her credit.

In 1873 she was commissioned as a Royal Naval Reserve training ship and towed north to Dundee where she took over her new duties. This was H.M.S. *Unicorn's* one and only sea passage ! Her predecessor, the smaller 38-gun frigate, H.M.S. *Brilliant*, was then transferred to Inverness where she served for several years in a similar capacity of training ship.

Shortly after arriving in the Tay, *Unicorn's* main-

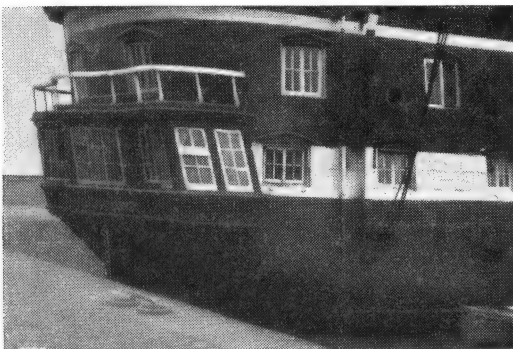
deck was roofed over so that drill could be carried out in all weathers. The resulting change in appearance, however, did little to enhance her sleek lines. On the formation of the R.N.V.R. at the beginning of this century, she was transferred to the new service.

Then, on 20 November 1941, a 20,000-ton aircraft carrier, H.M.S. *Unicorn*, was launched from the Belfast shipyard of Harland and Wolff. Consequently the Dundee ship had her name altered to *Unicorn II* and finally to H.M.S. *Cressy*, the name she bears today.

A few years ago she was fitted with radar and is equipped with other modern equipment for the training of R.N.V.R. personnel in the district.

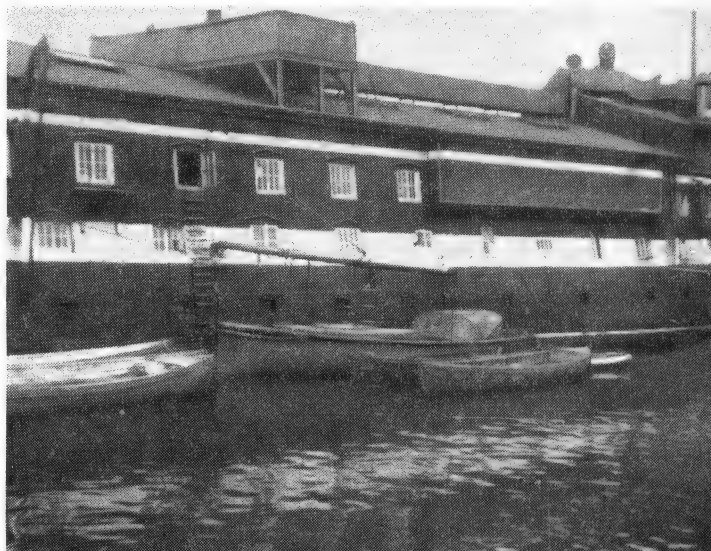
Although the ship has had a slight attack of middle-age spread, her timbers are in a remarkably good state of preservation. Indeed, owing to the lock-gates needing repairs, Earl Grey Dock was turned into a tidal basin for several days last summer. How well the ship was built is shown by the fact that, although she was left completely high and dry, her hull was not in the least damaged. ⚓

*A view in the port quarter showing the interesting
arrangement of the stern windows*



JULY 1956

*The grand old ship in Earl Grey Dock, Dundee. Her lines
are obscured by the numerous deck erections*



Below : The BERGENSFJORD, latest addition to the Norwegian America Line

Opposite: Largest single-purpose tanker in the world—the SPYROS NIARCHOS

SHIPS



THE OUTSTANDING TYNESIDE event of recent years has been the completion of the *Bergensfjord*, a transatlantic motor liner of 18,500 tons gross and 20 knots service speed.

Built at Wallsend by Swan, Hunter, and Wigham Richardson Ltd. for the Norwegian America Line, Oslo, she was handed over on May 14 and left later that day for a cruise to Norwegian ports.

Flagship of the N.A.L., she is intended for their New York service, and will operate alongside their seven-year-old *Oslofjord* and the now elderly *Stavangerfjord*. The last named will shortly be reconstructed for a further period of service during which it is hoped that another liner—as yet not designed—may be built.

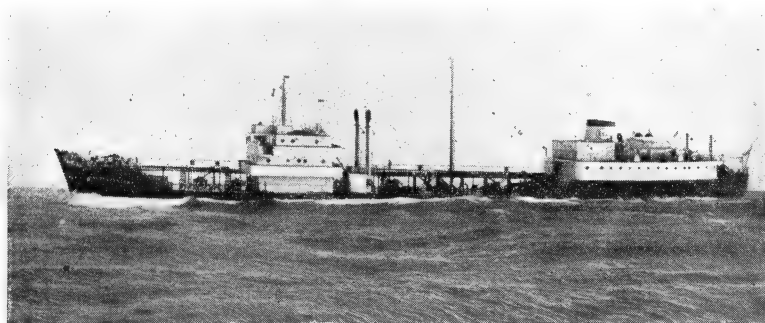
The *Bergensfjord* is almost a replica of the *Oslofjord* and, in view of the latter's success, the same hull model has been chosen, although the draught has been increased by 1 ft. Similarly, the machinery is of the same make and type, although each of the main engines has one extra cylinder. The superstructure is also of the same form, but by making this entire structure of aluminium it has been possible to extend it 50 ft. without any increase in weight. Of approximately 17,500 tons displacement, the ship has an overall length of 577 ft., a mld. breadth of 72 ft. and a draught of 27 ft. 6 in.

The passenger layout differs completely from that of the earlier ship

and caters for a much larger proportion of tourist passengers, the first class having been limited to 100 and the tourist expanded to 775. During certain seasons she will be used for cruising and the standard of the tourist class public rooms and cabins (each has a private toilet and/or shower) has, therefore, been raised, so that the two classes may then be satisfactorily merged into one.

The decor of the public rooms is in Scandinavian style, built around Norwegian traditions, and extensive use is made of light colours, tapestries, paintings and decorated glass walls. First-class cabins are arranged on the sun and upper sun decks, while the promenade deck beneath—the uppermost of the steel decks and distinguished by its tall windows—is devoted to public rooms of both classes. The first-class dining saloon is on this deck—higher than is customary—that for the tourist class being at a lower level.

There is a permanent swimming pool on D deck, while a portable outdoor one may be rigged by No. 3



A new bitumen carrier belonging to the Esso group—the ESO PRESTON

IN THE NEWS



By LAURENCE DUNN



hatch. Important points which passengers will appreciate is that the *Bergensfjord* is completely air-conditioned and is fitted with stabilisers.

As the main engines of the *Oslofjord* have proved so satisfactory, and to ease the stocking of spares, it was decided to repeat the installation of Dutch-built Stork-type diesel engines. These are double-acting two-stroke design, but as stated have an extra cylinder apiece. This step-up of power to a normal combined output of 18,400 b.h.p. is needed on account of the slightly increased draught and to enable both ships to operate at the same speed.

TANKER GIANT

THE *Spyros Niarchos*, believed to be the largest single-purpose tanker in the world, ran trials and was handed over on May 24. This ship, which was launched on December 2,

has been built by Vickers-Armstrongs (Shipbuilders) Ltd. for the Neptune Tanker Corporation, one of the Niarchos Group of companies. Of 47,750 tons d.w. she measures 757 ft. in length o.a. x 97.2 ft. mld. beam, and is propelled by high-pressure steam turbines which were also constructed at Barrow.

On trials, her designed speed of 17 knots was comfortably exceeded, a most noticeable feature being the complete absence of any noise or vibration. Her maiden voyage was to the Persian Gulf. Commanded by Captain S. Sotirchos and under charter to Shell, she will be employed in bringing crude oil to the United Kingdom.

A sister ship, now under construction at Barrow, is due for launching in August and delivery later in the year. The *Spyros Niarchos* is of striking and impressive appearance. Most noticeable of the several interesting features of her exterior design is the shape of the massive bridge structure, which besides housing navigational equipment, also contains remarkably fine accommodation.

Here the wide stanchions slope in harmony with the after edges of the several tiers of deckhouses. The mast and kingposts are thick, rooted with sloping after edges. Between the forward pair there is a horizontal crosspiece—and here we find a subtlety of design not often seen afloat, for the rail stanchions slope outwards from an imaginary point which forms the centre of the arc-shaped support for the forward steaming light.

ESSO BITUMEN CARRIER

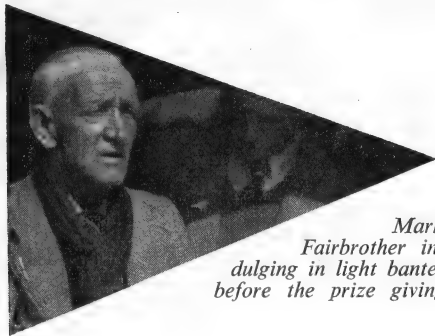
ALTHOUGH SMALL, the tank steamer *Eso Preston*—recently delivered to the Esso Petroleum Co.—is of particular interest in being designed to carry bitumen. The first in the fleet to be built for this purpose, she is a product of Hall Russell & Co. Ltd. of Aberdeen. A vessel of 2,300 tons d.w., she measures 297 ft. in length o.a., 42 ft. in breadth mld. and has a depth mld. of 20 ft. 9 in. Her builders were also responsible for her machinery, which is of triple expansion type. Taking steam from two oil-fired boilers operating at 225 p.s.i. and a steam temperature of 500 deg. F., it develops 1,300 i.h.p. and gives a service speed of 10½ knots.

The bitumen cargo is carried in five centre compartments which are fitted with steam heated coils. The flanking wing spaces are used for

water ballast. The pump-room abaft No. 3 tank contains two electrically-operated rotary displacement pumps, which are together capable of discharging over 250 tons of hot bitumen per hour. The ship is manned by 13 officers, three petty officers and a crew of 14.

For bunker distribution service in the Southampton region, the Esso Petroleum Co. has another new but smaller ship in service. This is the *Eso Poole*, 754 tons gross, which was built last winter at Hesse—near Hull—by Richard Dunstan Ltd. She has an overall length of 196 ft. and a beam of 30 ft. and a d.w. capacity of 1,070 tons. Her main role will be the supply of bunkers to ships in the port. ⚓

MARBLEHEADS at Dovercourt



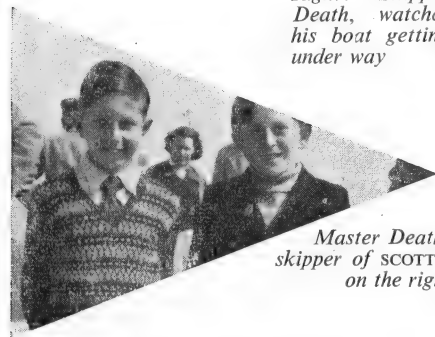
Mark Fairbrother indulging in light banter before the prize giving



Mrs. Gant hands the trophy to event winner B. Dale



H. Tregenna, of Ireland, with his plaque makes a modest reply



Master Death, skipper of SCOTTIE on the right

Fine weather with changeable winds set the scene for this year's M.Y.A. championships. There were fewer entries than usual, but the racing was as good as ever

THIS YEAR, the Model Yachting Association held its annual championship for Marbleheads at Dovercourt. The weather was all it could have been, fine and bright, with not even the threat of a shower all the weekend.

This wind was changeable but except for a rather quiet spell on Sunday afternoon there was a good sailing breeze. On Saturday the wind veered round from N.E. to S.E. giving the boats a beat and a run. On Sunday it was mainly from the S.W. again giving a beat and a run, but on Monday morning it was southerly, giving almost a reach each way. About midday it changed to the east and again the skippers had to find a new setting.

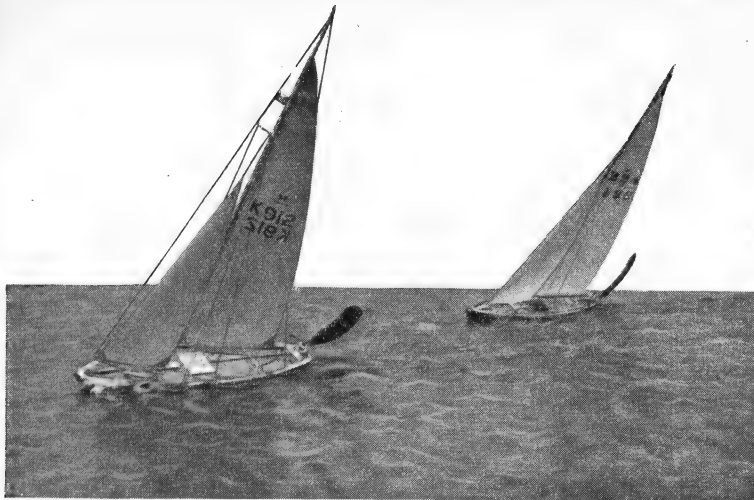
First suits were used throughout the weekend and nearly every boat used a spinnaker when running. Terylene sails were used almost exclusively, only one boat using

cotton. This was *Letitia-May* (945), a nice boat, beautifully planked in mahogany. She had just been completed by her skipper, R. Thorogood of the Southgate Club, and this was his first championship. Although he finished 14th he enjoyed the weekend immensely and had learnt a great deal. His 11-year-old son was his mate and as a team they worked together very efficiently.

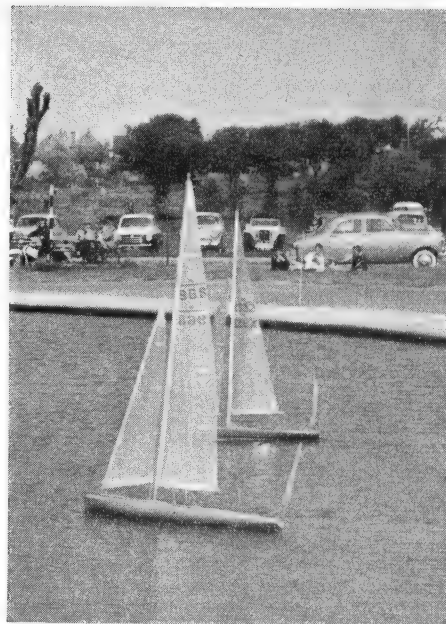
For some reason there were fewer entries than usual, totalling only 18. Three additional entries had been received from France—Messrs. Michel, Pierre and René, but they were all reservists and, owing to the crisis in North Africa, they were called up unexpectedly, and so were unable to attend. There were many regrets at their unavoidable absence.

Teams were entered from Danson, Southgate, and Birmingham, and, of course, from the local club, Harwich and Dovercourt, and individual entries came from the London M.Y.C..

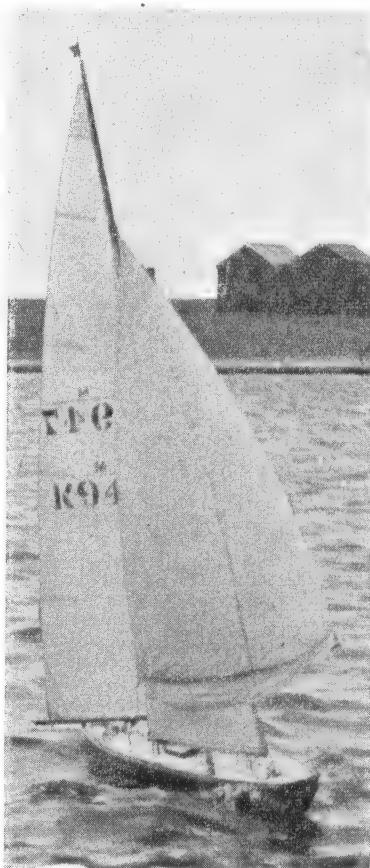




Left above: ZOE (A. Penn)
just leading DORIS H (L. W.
Wareham) in a close heat



Right, above: The modern tendency to
use Terylene sails is admirably illus-
trated here



Below: GANNET running well with her
spinnaker nicely set

Clapham, Birkenhead, and one from Ulster. This was H. Tregenna—an Irishman with a Cornish name—with his boat *Varuna* (979). He put up a good fight and had a great reception. He had to leave about midday on Monday, but was able to sail his final beat before the break for lunch, gaining 11th place. He was presented with a plaque in appreciation of his keenness in coming so far to compete.

Two rounds were sailed, and owing to the good sailing conditions, assisted by smart work on the part of the O.O.D., M. Fairbrother, and the officials, sailing was completed by mid-afternoon on the Monday.

Position	Skipper	Boat	Club	Score
1	B. Dale	<i>Triumph</i> (482)	Harwich and Dovercourt	128
2	L. W. Wareham	<i>Doris H</i> (224)	London M.Y.C.	117
3	F. H. Fitzjohn	<i>Anenome</i> (498)	Danson	115
4	E. Gorst	<i>Gannet</i> (947)	Clapham	103½
5	W. Grint	<i>Foxtrot</i> (927)	Norfolk and Norwich	102
6	J. G. Meir	<i>Hopalong</i> (932)	Birmingham	98
7	S. Nicholls	<i>Nicolette</i> (952)	Harwich and Dovercourt	97

The winner, *Triumph* (482), owner A. C. Richardson, and skippered by B. Dale, is a local boat and was sailed with great skill throughout the regatta. She was soon among the leaders and held the first place at the close of each day's sailing. L. W. Wareham, who secured second place with his old favourite *Doris H* (224), has already won the "M" Class championship on two occasions and this is the third time he has been runner-up. Incidentally *Doris H* was the oldest boat in the fleet, which speaks well for the soundness of the original design, although admittedly she has been slightly modified from time to time.

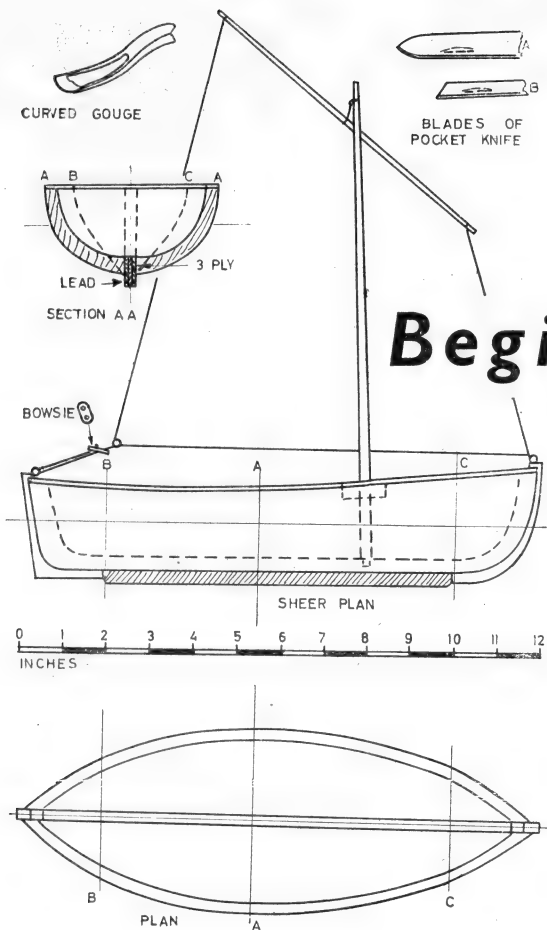
F. H. Fitzjohn of the Danson Club did well with *Anenome* (498) and came in third, being only two points behind the second boat. W. Grint with *Foxtrot* (927), who won the championship at Hove last year, came in fifth. Probably the heavier winds of last

year's event better suited his boat.

His father, H. Death, was his mate and he left all decisions to his son. There were a number of young mates in the event and it speaks well for the future of the sport to see the fascination it has for the youngsters.

In conclusion, some comment on the boats. Most of them were fine examples of design and craftsmanship. The majority had normal bows, but the three examples of Tucker's "Duck" bow finished amongst the first six. They were, of course, in the hands of very experienced skippers. Fins and skegs were mostly normal, although there were at least two with cut-away fins. Sails were beautifully fitted and invariably set well. There was one without battens and with no hem along the leech. Vanes were as varied as ever, and although fundamentally similar, seem to provide scope for experiment.





Beginners' PAGE

First of a new series in which all aspects of ship modelling will be covered with special reference to the novice with limited means

THE BEGINNER to model making is usually attracted by an elaborate design. Sometimes the attraction fades out into the feeling that it is hopeless to attempt to make such a model, but it is surprising how often the would-be model maker attempts something far beyond his ability.

Anything simple seems scarcely worthy of his interest or efforts. Such an attempt is almost certain to fail and the failure will most likely kill his interest. The range of interest in ships is most distracting. Ships have been built for thousands of years with their form developing all the time. Their size varies from the 10 ft. dinghy to the 1,000 ft. liner or the super-tanker. Their variety is, literally, endless.

A small sailing model will give the novice an appreciation of the essential nature of a ship more effectively than anything else.

The drawing shows a double-ended boat with a lugsail after the style of a Shetland sixern. For a model 12 in. long $\times$ 4 in. beam, take a piece of white wood, straight grained and free from knots, about 24 in. $\times$ 2 in. $\times$ 2 $\frac{1}{2}$ in. Square it on all sides and cut it into two lengths of 12 in. each. The keel or centre portion is of $\frac{1}{8}$ in. resin-bonded three-ply.

Cut it to the outline shown on the sheer plan, with a recess for the lead keel. The inner portion should be cut to the dotted line. Shape the two side pieces making the centre portion as shown in the section AA and tapering the ends at B and C, as shown by dotted lines B and C in the section. The inner sides should be hollowed out until the walls are about $\frac{3}{16}$ in. thick or even less—this can be done by means of a gouge which should be curved as shown.

The only other tools needed are a flat chisel about $\frac{3}{4}$ in. wide, a fretsaw and an ordinary small saw. The

pocket knife is one of the most useful tools and the blades should be shaped as shown at A and B.

Waterproof glue

When the side pieces are completed they should be glued to the centre piece, using one of the modern water-resisting glues such as Casco. The deck is of $\frac{1}{16}$ in. three-ply. Before fixing it, the mast hole should be bored and a corresponding hole in the keel for the mast step made, taking care to locate them so that the mast has a slight rake aft. A stiffening piece should be glued under the deck and it must be a good fit between the sides of the hull. With this, shrouds and forestay will be unnecessary.

The deck should be glued down and may also be secured by brass panel pins. The lead keel should be fitted into its recess and secured with screws. The mast should be split from a piece of wood, to ensure that the grain is true; similarly with the yard, which is $\frac{5}{32}$ in. dia. at its centre, while the mast is $\frac{1}{4}$ in. dia. at the deck.

Material for the sail

The sail is of fine cotton and the hems must be quite narrow. It should be laced to the yard. The yard is hooked to a wire loop formed around the mast. The tack or forward lower corner is secured to an eye in the stemhead and the sheet is taken to a similar eye in the stern post and adjusted by means of a bowsie as shown. No rudder is necessary—more will be learnt about sailing without one.

● To be continued

VICTORY FUND

The Admiralty announce the gift of £10,000 by the Trustees of the Save the Victory Fund towards the purchase of teak for use in the renovation of the main timbers of H.M.S. Victory which is at present being carried out at H.M. Dockyard, Portsmouth.

It may be recalled that in 1922 the Society for Nautical Research launched an appeal for public subscription towards the creation of a fund to save Victory which was then lying in a semi-derelict condition at Portsmouth. The object of the fund was to restore the ship to her Trafalgar condition, any surplus being devoted towards the building of a Victory Museum with a Panorama Annex alongside.

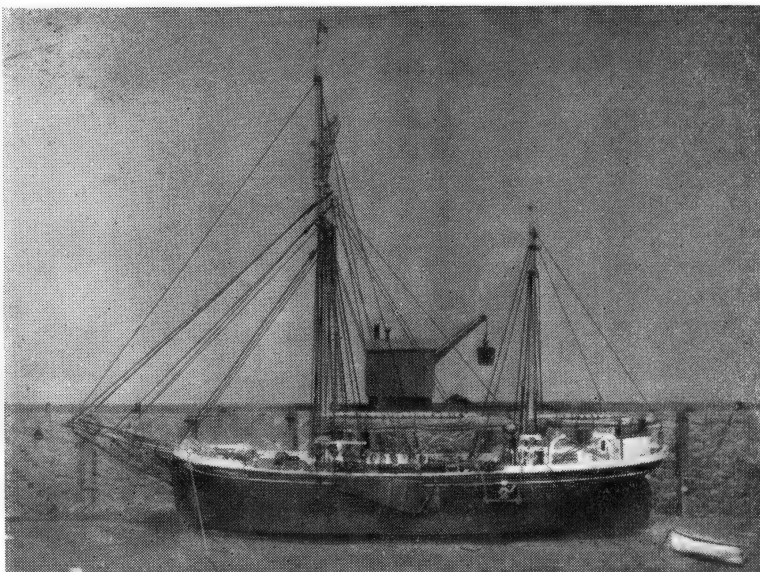
LECTURES AND TALKS usually turn out to be different to expectations yet I had no specially preconceived ideas about a talk on miniatures by Stuart E. Beck at Hammersmith.

It was good because it was personal to the speaker. He told us about scrounging around in his wife's work basket—how, for example, a piece of cord was just the right size and colour for a towing hawser; a piece of coloured paper from a sweet box was just the very thing for a sea (here I hasten to mention—at that scale). If the model had not been to the right scale to match the “sea,” each would have been unsuitable to the other.

The speaker is a commercial artist and he surprised me by showing a model “done” in water colours. He makes excellent use of metal paper used for sweet wrappings in his miniature work. Most of us are users of dental drills (secondhand, of course). Some also use broken bits of old safety razor blades but Mr. Beck has them cleanly broken off and superbly mounted to form chisels and other cutting tools.

Even his paint brushes are unusual, for the head is set at an angle to the handle, thus enabling him to paint round corners.

I was disappointed that he did not show any of his caricatures. These (he has made a number) represent famous ships and, as in a caricature, prominent features are exaggerated yet



A magnificent scenic miniature ship model A. S. Randall's MARTINET discharging coal

is 10 in. long, with $\frac{1}{2}$ in. lifeboats. Some very famous ships would only be little more than an inch or so in length!

Some say the actual size of the model should determine the status. That invites criticism of boats, open or half decked, when the scale can run up to 1 in. to 1 ft. or even larger scales than that.

Beaconstreet by Anthes of Sheffield. Or what about Chapman's *Admiral's Barge*—a Championship Cup winner as well as winning the Duke of Edinburgh's Challenge Trophy.

Here was a model to a scale of $\frac{5}{16}$ in. to 1 ft. beautifully detailed, as the judges would say, to a standard of miniature craftsmanship. Well! What is a miniature ship model?

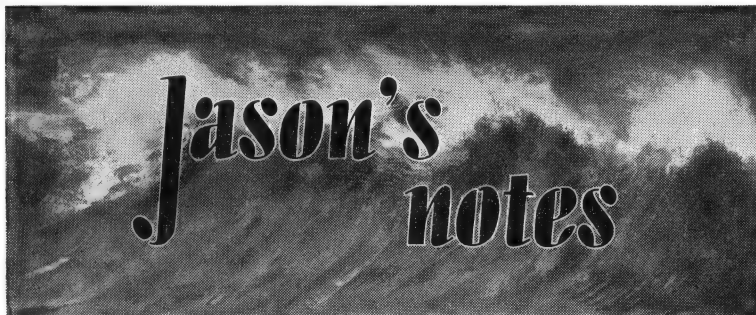
A new miniature prize

Here is advance information about a new prize, value £10, for next year's (1957) Model Engineer Exhibition. The donor seeks to encourage pre-1820 sailing ships. The essential particulars are that the scale must not exceed $\frac{1}{16}$ in. to 1 ft.; the length of model must not be over 10 in. o.a.; and the model must be a decked vessel. Otherwise the maker is free to set sail or not, mount on balls in the K. P. Lewis style or even a hull only, but it must be pre-1820.

Exhibition S.M. societies stand

A note from Mr. Gay reminds me that societies and secretaries do not always tell anyone of changes. He is anxious to bring his log up to date in time for the exhibition and he mentions a few: Solent Shiplovers, North Oxfordshire, Luton and South Beds. S.M.S., Salisbury and many others.

Don't forget that the S.M.S. stand at the exhibition is your own stand whether lone wolf or solid society member. The London members staff it because of convenience and it is their privilege. If you would like to help, write to W. Gay, 351, Kingshill Avenue, Hayes, Middlesex. ⚓



the ships are recognised at once by those familiar with them. He told me that they, the models, have all been begged from him.

What is a miniature?

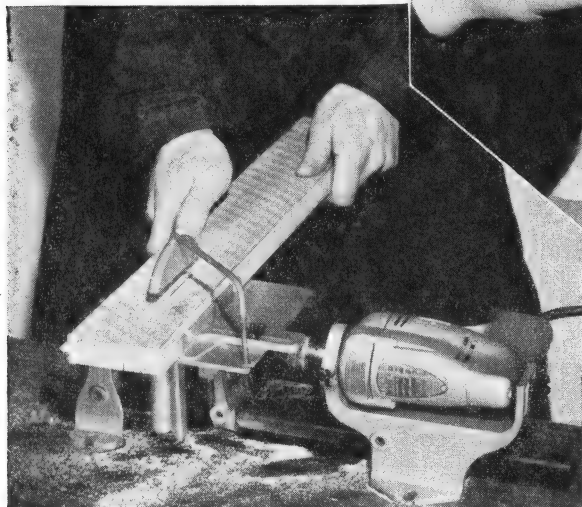
This is now becoming somewhat hoary but the question is still wide open. The leading miniaturists are quite divided. The Editor himself has his views, which are not universally accepted. Is a limitation to be imposed by scale alone? If so, what scale?

Consider for example a *Queen Mary*. At 100 ft. to the inch the model itself

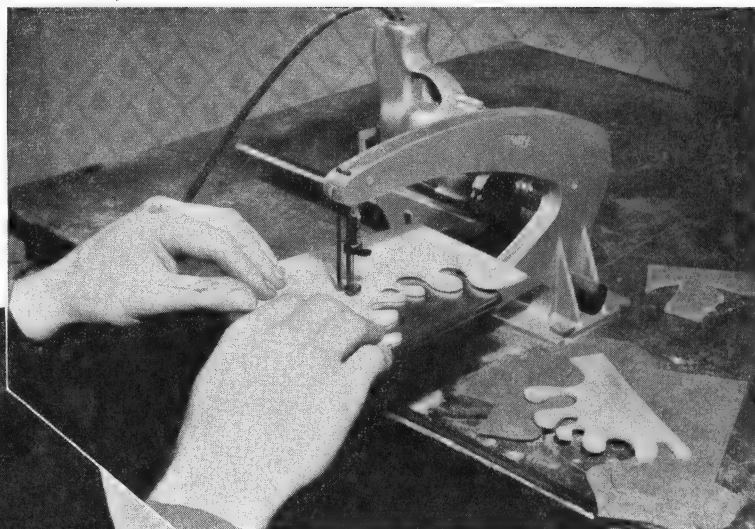
So far we have considered full-hulled boats and ships but what about scenics and settings generally? I hold the view that a setting should show at least half a ship's length ahead of the model and a similar distance astern. Should there be a limit to the area of the setting, say, 300 sq. in., as many people advocate?

In recent years the judges at the Model Engineer Exhibition have used the expression “a standard of miniature craftsmanship.” This might be applied to a large model in a big scale, such as, for example, *The Fame* by Brundell of Reading or the tanker

Cutting fretsaw patterns with the kit



Ripping heavy timber with the saw kit



FOR a number of years ship model-makers have been familiar with the Wolf Cub drill and its various attachments. At various times new attachments have been produced until they now comprise equipment for bench sawing, portable and bench

drilling, grinding, sanding, fretsawing, planing and polishing. Unique interchangeability ensures that not a single item is duplicated.

For building ship models, such as that described by R. G. Collins in his series of articles on building a

Sixth-Rater, tools of this type are almost indispensable. The fretsaw, for example, will not only save time but enable the work to be done with much greater precision and accuracy than is possible with the hand saw. For producing the planking, the saw bench will save hours of work and ensure planks of uniform width and thickness without any trouble.

A recent addition to the range is the flexible shaft set which will provide the ship modeller with a tool for intricate drilling, grinding, carving engraving, polishing and a host of other operations, in wood, ivory, Perspex, or plastic. A big advantage of the Wolf Cub is that the extras can be added as the need for them arises and as funds are available. Makers are Wolf Electric Tools Ltd., Hanger Lane, London, W.5.

READERS' QUERIES

Wood advice

I am a novice to ship modelling and for my first few projects I want to build non-sailing models with solid hulls. I had thought of using balsa wood but I have been told that although this is easily workable it will not take a good finish.—G.B.D. Tottenham, N.17.

If balsa is treated with a good filler it can be brought to a fine finish, but in doing this the corners are often rubbed away and the shape spoilt. A better wood is obechi, which is generally obtainable at model shops. Yellow pine is easily worked and is considered the best wood for carving and ship

modelling but it is difficult to obtain. A semi-hard wood is also suitable.

Reverse Marshall aid

In connection with the restoration of the sailing ship *Balclutha* which was commented on by Alan Villiers in his article (July 1955) the San Francisco Maritime Museum, Foot of Polk Street, San Francisco, 9, California, is still anxious to obtain information especially original plans or photographs showing the ship in her original condition. Corresponding information about the sailing ships *Orient* or *Sirenia* would also be appreciated, as these ships were similar to the *Balclutha*. Any materials sent will

be treated with the utmost care and will be returned if desired.

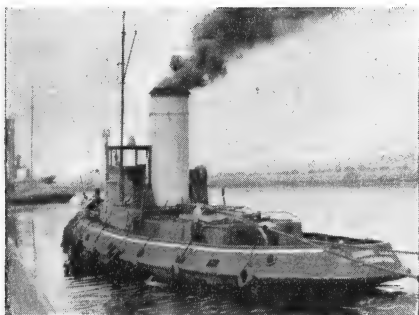
KARL KORTUM, Director,
San Francisco Maritime Museum,
California.

We have given some assistance and readers who may have information should communicate direct with the museum.—EDITOR.

Why Terylene ?

I gather that Terylene is the material to use for sails. I have made one or two enquiries and this material seems to be rather expensive. Is the expense justified?—J.G.S., Stroud, Glos.

Yes. Terylene is undoubtedly the best material for sails. It is difficult to say whether it is a cheap long-term proposition and readers' experiences in this matter will be welcomed.—EDITOR.



S.T. SEDGE COCK (Liverpool), one of the tugs featured in . . .

BRITISH TUGS 1956 by H. M. Le Fleming, published by Ian Allan Ltd., Craven House, Hampton Court, Surrey. Price 2s. 6d.

This is the latest addition to this publisher's "a.b.c. Series" of little books in ships, and might easily prove to be the most useful. Tugs can be seen in all our ports, but there are so many of them and they are all so alike that it is sometimes difficult to identify them.

This book will prove very useful in this connection: it is of a convenient size for the pocket, and the contents are so well arranged that it is possible to turn up the reference and obtain all the information required at a moment's notice. The introduction explains the special points in the design of tugs and gives a list of the various types and their general dimensions and their special uses.

The first section consists of an alphabetical list of Admiralty tugs with their date of construction, tonnage, horse power, type of engines and the name of the port on which they are based. Then follows a list of the owners at the various ports, beginning with the Thames and following round the coast of Great Britain and Ireland, with particulars of each tug of each owner. Hull and funnel colouring is also given in each case.

Photographs of a large number of the vessels are included.

THE WORLD'S MERCHANTMEN

—annual review

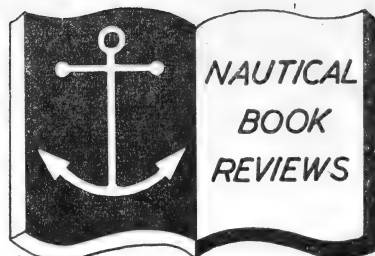
Merchant Ships: World Built, 1956 Volume. Compiled by the publishers, with an introduction by A. C. Hardy, B.Sc., M.I.N.A. Published by Adlard Coles Ltd., 7, Brunswick Place, Southampton, in association with George G. Harrap and Co. Ltd., London, and John de Graff, Inc., New York. Price 30s.

The fourth volume of this publication contains particulars of all the merchant ships of 1,000 tons gross and over which were completed during 1955. The scheme of producing an annual review of this nature is extremely useful and helps considerably in recording developments.

The introduction by A. C. Hardy is taking on the nature of an annual review of ship development and is most informative. He points out that, as regards propulsion, the diesel engine shows signs of giving way to newer forms of power unit, notably the gas turbine, and nuclear propulsion is still in the future.

Atomic power does not presage an entirely new conception of machinery. The atomic pile merely replaces the boiler and the chief advantage is the greatly reduced deadweight devoted to fuel, although the sheathing round the atomic pile will be very heavy. The geared turbine with water tube boilers, and the high speed oil engine driving through gearing or electrically, is at present attracting new interest. The adjustable pitch propeller is being used for upwards of 10,000 h.p. on a single shaft, and is also being used in many cases for the reversal of the ship. The oil engine is undergoing considerable improvement and is now developing up to 20,000 h.p., thus making it suitable for the largest tankers and ore carriers.

The *Southern Cross*, one of the most notable ships of 1955, with its

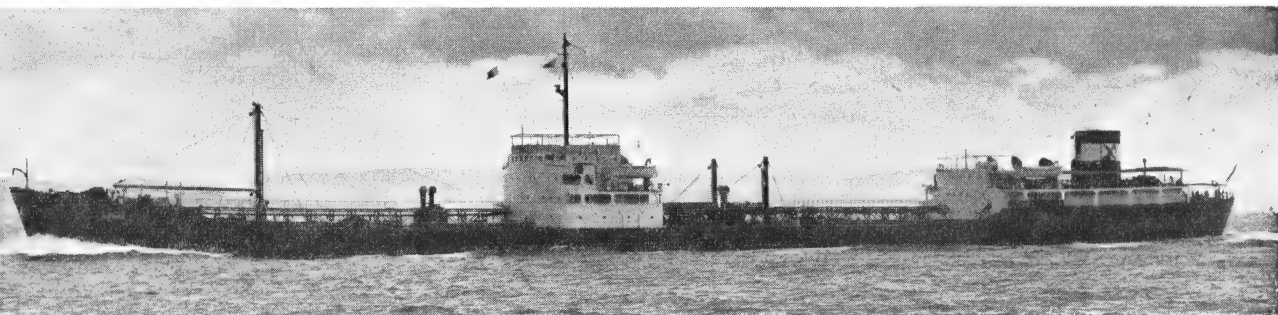


funnel and engines aft, has been designed to carry passengers only, in order to facilitate a more speedy turn-round in port. General cargo ships are giving way to ships for specialised cargoes, although specialisation has its own difficulties. Large tankers are being built to carry ore as an alternative, the huge Japanese 56,000 tonner *Sinclair Petrolase* being a case in point. There are signs that tankers may be built to larger dimensions although, with the passenger liner, the tendency is toward ships of more moderate size.

Very few large passenger liners were completed in 1955 but the demand for car ferries and passenger ships for short sea routes was heavy. More attention is being paid to the appearance and painting of ships and many of the new designs are most handsome and impressive.

The main body of the book consists of a complete list of the ships indicated by the title, and is divided into sections dealing with each of the countries concerned. Full particulars and descriptions are given of each ship and a large number of them are illustrated by a photograph. Profile and deck plans are given of 23 of the more interesting ships, a feature which will be greatly appreciated by the ship modeller—especially by the miniaturist. These include ships of all sizes and types and it is pleasing to see the Portuguese hospital and fisherman's depot ship *Gil Eannes* had been included. A complete index adds to the book's value. ⚓

One of the many fine illustrations in "Merchant Ships: World Built, 1956"



Wake formation of a twin screw destroyer at 35 knots in smooth water

WAKE FORMATION — A PLEA FOR MORE DATA

SIR.—Congratulations on your May issue with Norman Ough's magnificent drawing of H.M.S. *Lion*. I was interested to learn that she still carried torpedo net booms at Jutland. The picture on page 151 is also of great interest as her appearance is very reminiscent of R.M.S. *Queen Mary*.

With regard to Derisley Trimmingham's letter on Naval History, H.M.S. *Rattler* of 1842 is generally accepted as the first screw ship of the Royal Navy. As regards turret ships, surely *Royal Sovereign* (1864), *Prince Albert*, *Scorpion* and *Wyvern* all preceded the *Monarch*? The Admiral class were the first to combine the main armament in two mountings fore and aft with a secondary armament amidships and were, therefore, the first of the pre-Dreadnought type.

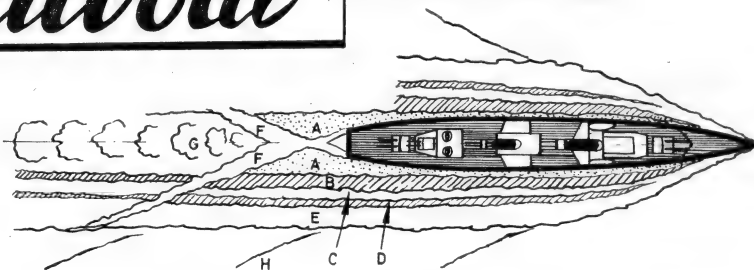
The wrongly captioned picture on page 43 turns out to be of exceptional interest and a rare find as wartime pictures of H.M.S. *Indefatigable* are extremely scarce.

In the reproduction of H.M.S. *Cockade* on page 165, the wake formation is not at all clear. Among the literature on the subject is a paper entitled "Destroyer Forms" read by J. L. Scott before the North East Coast Institution of Engineers and Shipbuilders in 1933. This is illustrated by magnificent air pictures of the wake of a flotilla leader. Since I have also been fortunate enough to have been on destroyer trials and make my own observations I am enclosing a half-plan sketch.

Although different speeds, types of ships and seaways modify the wave formation, the sketch nevertheless brings out all the principal features. Of these, *d* is the most likely to be missed. It is a great pity that so many excellent models and pictures are spoilt by lack of data on this essential feature of realism.

There is a poster at present on view with a wellknown liner at sea—but the wave formation is of a ship at anchor in an estuary being lapped by the wake of a passing vessel!

London, W.4. H. M. LE FLEMING.



- a. Skin belt of white water.
- b. Broad belt of green water.
- c. Belt of foam from first part of bow wave.
- d. Narrow belt of green water.
- e. Broad outer belt of foam from main part of bow wave.
- f. Stern wave overlaying a, b, c, d, and e, b and d reappearing in reduced form.
- g. Propeller disturbance increasing in effect and finally becoming the most prominent feature of the wake.
- h. Wedge shaped wave formation.

THOUGHTS ON S. and S.M.

SIR,—Further to Mr. Curtis's letter I sincerely hope you will renew this feature "Fleet Review". I should much appreciate a list of new and broken-up ships as well. Perhaps other readers might like this matter month by month.

Unfortunately, I am not particularly interested in modelling so the cost of SHIPS AND SHIP MODELS is high for me, in so far as I do not personally get full value from it. There is far too much modelling for me, particularly as regards yachts. Nevertheless I do think it is a very great pity that the ship plans in the centre of the paper are not printed and bound so that they would not be ruined if the magazine is bound in volume form.

I feel many readers would appreciate a folded plan, like those published in the pre-war SHIPS AND SHIP MODELS. I look forward to Villiers's articles, "Ships in the News," and similar items.

Freshwater,
I.O.W.

R. STIMSON (JR).

SIR,—Like your reader, Mr. J. Curtis, I have missed the feature "Fleet Reviews," in your magazine.

Personally I would like more space devoted to ships and less to ship models (the order of the title of your magazine!) and would suggest that "Ships in the News" could easily be expanded also.

Hampton,
Middlesex.

A. K. WEBB.

● It is difficult to maintain a balance that pleases all the readers all the time, but we do try!—EDITOR.

SCREWS IN THE NAVY

SIR,—On reading the May issue I find that I have some information that may be useful to Mr. Trimmingham, namely that the first naval ship to be fitted with a screw-propeller was H.M.S. *Rattler*, in 1843.

I do not agree with him when he speaks of the "ill fated and less well designed *Captain*." H.M.S. *Captain* was designed by Captain Cowper Coles, and capsized off Cape Finisterre on 7 September, 1870, 472 lives being lost including the designer. At the court martial it was found that the fault was due to faulty construction, a grave departure from her original design having been committed.

Sunderland,

G. HEATH.

LION AT JUTLAND

SIR,—I read with interest Norman Ough's article in the May issue on H.M.S. *Lion*. In his description he writes "It is not ascertainable from the records whether she carried at Jutland the net defence booms which are shown on the drawing. . . ."

I have in my possession, a copy of "The Fighting at Jutland," in which there is an excellent photograph—I believe taken from a nearby destroyer—of the *Lion* at the instant that "Q" turret was hit, showing a flame rising up to near mast height from the roof of the turret.

In this particular photograph, the whole of the hull of the *Lion* is clearly visible, and no net defence booms are to be seen.

Wollaton Park, A. CYRIL YEATES.
Nottingham.

ATTIYATHUR RAHMAN IN 1944

SIR,—In connection with the article by Alan Villiers, "Where the Sail Survives," in the May issue, I believe I can throw some light on the Maldivian brig *Attiyathur Rahman*, which the author was unable to see.

Twelve years ago I was in a naval vessel which was stationed in the Indian Ocean, and one day, while we were anchored in the harbour of Colombo, the *Attiyathur Rahman* arrived flying the ensign of the Sultan of Maldives. She came in manoeuvring smartly under sail, dipped her flag to the senior naval vessel in the harbour and came to anchor not far from our ship.

The brig of about 200 tons was flush-deck and was carefully built, mostly of teak, and more on the standard of a good yacht than of a merchant vessel. The topsides were painted light grey, and the rail and deck were teak holystoned. The masts, yards and rigging were in perfect

conditions, as far as I could judge, varnished and tarred, the shrouds set up by dead-eyes, all the brass, like the binnacle, etc., polished and shining and everything was immaculately maintained.

The ship carried a complement of about 15 people. The men slept over mats in the forecabin, situated on the main-deck and which was open, looking aft—a convenient arrangement for tropical climates. Everywhere it was meticulously clean. The only unpleasant item was the smell of fried fish which permeated everything on board, though all cargo had been unloaded.

After the of the mizzen mast there was a partially sunk teak deckhouse containing a large chart room, a saloon with bunks for four officers, and a very roomy captain's cabin. These living quarters were comfortable and tidy—more similar to yacht accommodation than to what we are accustomed to

see on board a small merchantman.

As they made the passage to the Maldives islands, a hundred miles out of sight of land, they had on board everything necessary for accurate navigation—a big steering compass, another inverted compass over the bunk of the skipper, a large chart table, a set of charts covering the area where they used to trade, parallel rule, dividers, a nautical almanac, navigation tables, a sextant and two chronometers. Though he was unable to explain to me by words, the captain showed me a copy-book from which it could be seen that they used the most modern methods of navigation.

It was a pity that I could not get more information, having no common language, but it was obvious that it was a good and smart vessel, well run on a nearly naval routine, and it is sad that also this fair example of the sail era should have disappeared from the seas.

Genoa,
Italy.

BRUNO VERONESE.

★ ★

NEWS FROM PERU

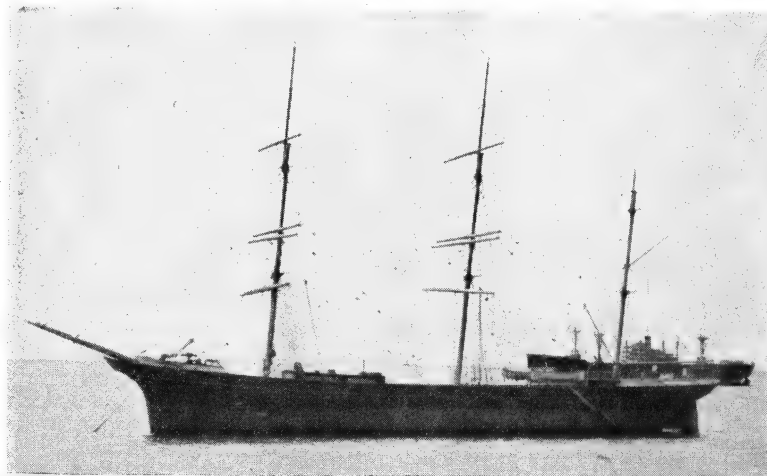
FATE OF OLD SHIPS

SIR,—You will be interested to hear that the three-masted barque *Maipo* has been broken up here in Callao Naval Dockyard. Also broken up at the same time was the clipper-stemmed steamer *Urubamba*. I now hear that the three-masted barque *Tellus*, now known as the *Malaboo*, will also share the same fate as the *Maipo*. The *Tellus* was bought over a year ago for conversion as a floating yacht club and renamed *Malaboo*. As far as I can make out the idea has been a flop and that it has been decided to scrap her.

The four-masted barque *Omega* is still going strong and is at the moment loading jute sacks at Callao for one of the guano islands. In case you may like to print some views of the *Maipo* and *Urubamba* I enclose photographs of these two vessels.

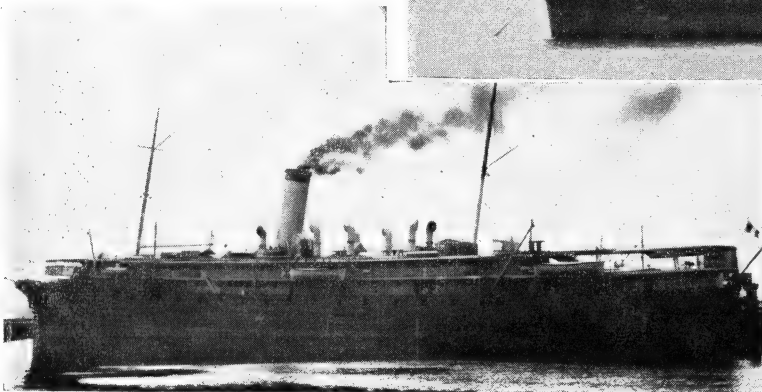
Peru, R. C. SHEPHERD.
South America.

R. C. SHEPHERD.



The "Maipo" was a steel ship of 1,770 tons reg. Built 1893 by J. C. Tecklenborg, Geestmunde, for Rhederei Akt. Ges. von 1896, Hamburg. On the outbreak of the 1914 war she was interned at Callao and was later taken over by Peru after hostilities had ended. Her rig was cut down to barque rig about 15 years ago and her royals were taken off about 10 years ago.

The "Urubamba" was a twin screw steamer of 2,673 tons net. She was built 1910 by Ch. and Atel. de Provence.



The scene at the Thames Group's President's Evening when Vice Admiral A. D. Read was welcomed as the society's first president

THAMES GROUP MARINE MODELLING SOCIETY

At a special President's Evening on May 5, at the Terrace Hotel, Gravesend, Vice Admiral A. D. Read, C.B., was welcomed by a large attendance of members as the society's first president.

In presenting Vice Admiral Read with a badge and life membership card, the chairman, E. Altenhein, remarked that notwithstanding the difficulty of having no local model boating pool the society had doubled its membership since its foundation in 1953 and was proving to become one of the most popular model making organisations in the district.

Before informally viewing a display of model ships Vice Admiral Read gave a talk based on his naval career including wartime adventures in the Mediterranean, Atlantic and Pacific Ocean commands.



News from the clubs

"A" CLASS British (M.Y.A.) Open Championships, 1956, will be held at Gosport from Sunday, August 5, to Sunday, August 12. Last day of entry July 9. Full information from W. G. BAKER, 20, Richmond Road, Gosport, Hants.

INTERNATIONAL RADIO CONTROLLED MODELS SOCIETY

The annual contests for radio controlled models will be held at the Valley Pool, Bourneville, Birmingham, on August 5, 6 and 7. The contest for radio controlled boats is to be spread over two days, August 6 and 7, and will be divided into three classes:—

- A. Model boats with any form of power;
- B. Model yachts;
- C. Model boats driven by i.c. or steam—points being awarded for steering only with a bonus for speed.

Entry forms, copies of the rules and further information may be obtained from H. CROUCHER, 27, St. John's Road, Sparkhill, Birmingham, 11.

Y.M. 6m. O.A. AND SOUTH LONDON M.Y.C.

The fixtures for July are as follows:
 Sunday, July 8. Class A Glenham Cup (Open). Racing starts 10.30 a.m.
 Sunday, July 22. Class A Handicap Race. Racing starts 2.00 p.m.
 Secretary (Y.M. 6m. O.A.): H. D. HADFIELD, 132, Westbourne Grove, Westcliff-on-Sea, Essex.

POOLE M.Y. AND P.B. CLUB

The fixtures for July are as follows:
 Sunday, July 1. Miller Shield, M class.
 Sunday, July 8. S.W. Championship, M class.
 Sunday, July 15. Ladies' Cup. M class.
 Sunday, July 22. Coronet Points. M class.
 Sunday, July 29. Team Race. M class.
 Secretary: W. E. L. PERRETT, 46, Cranbrook Road, Parkstone, Dorset (Phone: Parkstone 3420).

HOVE AND BRIGHTON M.Y.C.

The fixtures for July are as follows:
 Sunday, July 1. Southgate M.Y.C. M class.
 Sunday, July 8. Danson M.Y.C. M class.
 Sunday, July 15. Metropolitan and Southern District Championship. 10-Rater.

Sunday, July 22. Guildford M.Y.C. 10-R/36 in.

Sunday, July 29. Clapham M.Y.C. M class.
 Secretary: F. JENNINGS, Ardingley College, Haywards Heath, Sussex.

FLEETWOOD M.Y. AND P.B. CLUB

The fixtures for July are as follows:
 Sunday, July 1. Lever Cup. 10-Raters.
 Monday, July 9, to Friday, July 13. M.Y.A. Regatta for the British Open Championship. 10-Rater.
 Saturday, July 21. Spoon Race. A class.
 Sunday, July 22. Mayoral Cup. M class.
 Sunday, July 29. Power Boat Section.
 Secretary: P. L. WINDSOR, 31, Gallows Road, Fleetwood.

THE HAMMERSMITH SHIP MODEL SOCIETY

The meetings for July are as follows:
 Tuesday, July 3. Chairman's Night. A

talk on models in the Museum für Hamburgische Geschichte, Hamburg.

Tuesday, July 17. Auction Sale.
 Meetings commence 7.30 p.m. Secretary: H. J. COSTER, 98, Craven Park, Harlesden, N.W.10.

NORFOLK NAUTICAL RESEARCH SOCIETY

The Mission's m.v. *John Ashley* will visit East Anglian ports on the following dates:
 Tuesday, July 10–Thursday, July 12. Kings Lynn Docks.
 Friday, July 13–Monday, July 16. Hall Quay, Gt. Yarmouth.
 Tuesday, July 17–Thursday, July 19. Near Foundry Bridge, Norwich.
 Friday, July 20–Monday, July 22. Herring Basin, Lowestoft.
 The vessel will be open to the public and members of the Society have been specially invited.

FAIRLEAD FOR LARGE MODELS

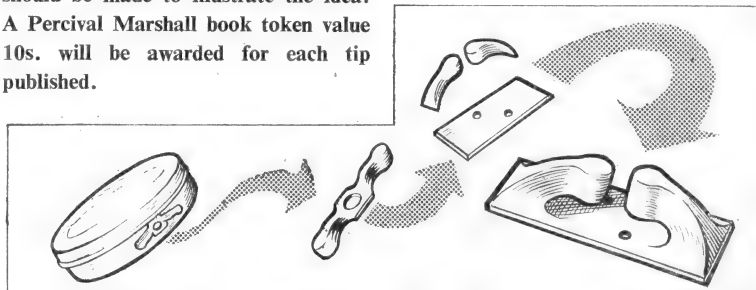
OBTAIN a twist opener from a shoe-polish tin and cut it as in the diagram. Cut and file to shape a strip of copper or brass to a size of $\frac{15}{16}$ in. $\times$ $\frac{5}{16}$ in.

Assemble as shown in the sketch running in a thick fillet of solder. drill $\frac{1}{16}$ in. holes for fixing to the deck and enamel the complete fairlead grey or black.

C. D. MCGHEE.

Readers' HINTS

Contributions to this feature are invited from readers. Hints should be as brief as possible and sketches should be made to illustrate the idea. A Percival Marshall book token value 10s. will be awarded for each tip published.



the built-up ship model

Continued from page 215

construction of these models with, in the case of the smaller scale only, one exception, and that is gratings. In shops devoted to needlework and embroidery it is possible to buy a tough card pierced with tiny holes about $1/32$ in. in diameter which are in straight lines and not staggered. This makes a grating in $1/16$ in. scale, which is as near perfect as makes no never mind.

Cut a piece of this card to size, cut a frame to fit (not the other way round or the holes will not come right) and glue in. After glueing, soak the card in shellac—soak, because the card must be hardened, but use discretion so that the holes are not blocked up. With a needle in a pin-vice ground square to size, convert the round holes in the card to square. The maximum size of the square on the needle must be the right size for the holes in the grating, i.e. $1/32$ in. square. The taper must not

continue to a larger size or the holes in the grating will vary.

Another way is to fix the needle in the vice where the square is the right size, the vice then acts as a stop. With me the needle always slips in the vice and I find it easier to see what I am doing the other way. Some pin-vides have square heads to tighten up the jaws and it is quite easy to grind squares with this type. The card must be thoroughly impregnated with shellac, which must be quite hard and the card must be on a piece of fibre otherwise it may tear.

It may be taken that the holes in such card are not more than $1/32$ in. square, in line, with $1/32$ in. between holes. If the right needle files are obtainable the holes can be squared with a file, more care is necessary but there is less risk of tearing but it is advisable to try both methods before deciding on the one to use.

Gatings from rulers

An advantage of using a small scale is that such small quantities are required. I have just found a broken 2 ft. rule (being old it is boxwood); there is enough wood to make gratings for a whole fleet, plus bulkhead carvings.

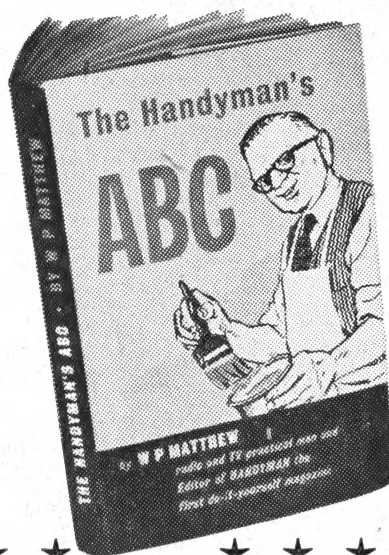
If anyone should think of building

a model in the smaller scale, I advise most strongly starting on a single-deck ship of the last half of the eighteenth century, or at least after the order further reducing the prices allowed for carvings (1737). In 1796, there was an order "to explode carved works altogether," but that does not mean that a model of a ship of this later period would be any less good to look at than a model of a ship of an earlier, more ornate, period—the odds are that it would be more pleasing as having better lines.

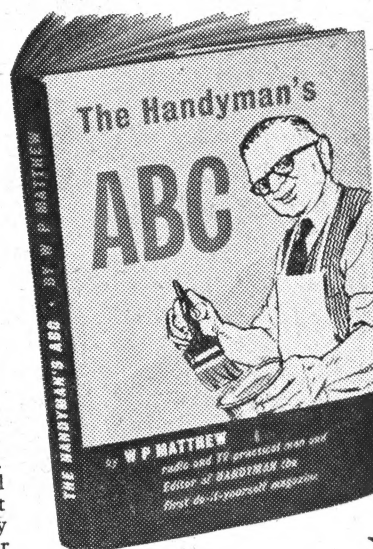
Masts and rigging are a different story altogether. To add them is a fairly simple matter but it means that the model must be under glass. If the glass is framed in wood it overpowers the model—if in passe-partout, as is sometimes tried, the fabric rots in time and down comes the glass.

A final tip. When carving, do it on the end of the stick, which leaves something to hold it by. Cutting off the finished carving should be the last thing done; it saves much bad language and sticking plaster—don't bleed over the wood! This applies to any scale but is not always possible in $1/4$ in. For instance, a slot has to be cut in the figurehead to fit over the stem; this should be cut before any carving is started as it is difficult to do otherwise. 

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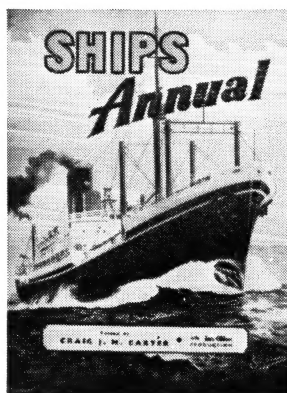
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